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TERMS OF REFERENCE

Railway Board's Safety Directorate vide their letter No. 2003/Safety-I/ 6/2 dated 29th September 2003 laid down the requirement of Zonal Railway's Disaster Management Plan as follows:

1. **Disaster Management Plan** - All Divisions and Zonal Railway Hqtr. (including Metro Kolkata & Delhi Metro Rail Corporation) must devise their disaster management plan, if not already done taking into consideration the resources available with them, their neighbouring divisions/Zonal Railways, civil authorities, industrial units and Armed Force bases located in their territory. This would enable the Divisions/ Zonal Railways to muster the entire local resources in case of a major disaster/natural calamity. Zonal Railways Disaster Management plan should integrate all divisions and also to take into consideration adjacent railways' framework.
2. **Preparation of Disaster Management Plan** - The Disaster Management Plan must *interr alia* include 'who is responsible for what activities in detail'.
 - (i) Preparation and implementation of disaster management plan is the responsibility of concerned General Manager/Divisional Railway Manager.
 - (ii) Authority to order ART/ARMV /Break Down crane - On receipt of advice of accident, the CHC/DY CMC Punctuality shall order the ARMV and/or ART as necessary.
 - (iii) Senior most railway officer at the site of the accident shall be the designated Site Manager.
 - (iv) Management of rescue operations - Primarily Mechanical and Medical Departments. Assistance to be provided by all railwaymen (irrespective of their department) as needed.
 - (v) Relief operations including care for the dead - Commercial, Medical & RPF Departments,
 - (vi) Communication network - Telecom Department,
 - (vii) Crowd control and law & order at site - RPF.
 - (viii) State police clearance for restoration - RPF.
 - (ix) Restoration operations -
Rolling stock - Mechanical Department.

Fixed infrastructure like Track, Over Head Equipment, Signaling system, etc. P. way departments concerned.
 - (x) Maintenance of SPART / ART & ARMV Rolling Stock/Break Down cranes including rail-cum-road and road mobile emergency vehicle etc. - Mechanical Department.

- (xi) Maintenance of equipment kept in SPART/ ART/ ARMV for rescue and restoration operations - departments concerned.
- (xii) Media Management at site -
 - (a) Site Manager shall be the chief spokesman at site and can be assisted by the branch officers concerned, if needed.
 - (b) PR/Commercial Department to look after the media needs at site.
- (xiii) Checklist for the officers & supervisors must be issued in the form of a pocket booklet indicating DOs and DON'Ts for the benefit of:
 - (a) First official reaching the site of accident
 - (b) Senior most officer at the site.
 - (c) Divisional/HQ control organization.
 - (d) Station Manager/Station Master

ABBREVIATIONS USED

1AC	1 ST Air Conditioned Coach
2AC	2 Tier Air Conditioned Sleeper Coach
3AC	Tier Air Conditioned Sleeper Coach
AC	Air Conditioned
ADG	Additional Director General
ADMO	Assistant Divisional Medical Officer
ADRM	Additional Divisional Railway Manager
ADEN	Assistant Divisional Engineer
AGC	Station Code for Agra Cantt.
AGM	Additional General Manager
AH	Station Code for Achnera
ALD	Station Code for Allahabad
ALJN	Station Code for Aligarh
ADME	Assistant Divisional Mechanical Engineer
ARME	Accident Relief Medical Equipment
ARMY	Accident Relief Medical Van
ART	Accident Relief Train
Asstt.	Assistant
ADSTE	Assistant Divisional Signal & Telecommunication Engineer
BCX	8-wheel covered vacuum brake wagon
BD Spl.	Break Down Special
BFR	8-wheel open flat vacuum brake wagon
BINA	Station Code for Bina Jn.
BIX	Station Code for Bhind
BKI	Station Code for Bandikui
BNDA	Station Code for Banda
BPC	Bharat Petroleum Corporation
BPL	Station Code for Bhopal
BRN	Station Code for Barhan
BRWD	Station Code for Barwadih
BSNL	Bharat Sanchar Nigam Limited
BXN	Station Code for Bayana
C&W	Carriage and Wagon
CAC	Combined Assistance Center
CAR	Station Code for Chunar
CBE	Chief Bridge Engineer
CCM	Chief Commercial Manager
CCM(C&PS)	Chief Commercial Manager (Catering and Passenger Services)
CCM(FM)	Chief Commercial Manager (Freight & Marketing)
CCRS	Chief Commissioner of Railway Safety
CE	Chief Engineer
CEE	Chief Electrical Engineer
CELE	Chief Electrical Loco Engineer

CFTM	Chief Freight Transportation Manager
CHC	Chief Controller
Chg.	Coaching
CHOD	Coordinating Head of Department
CMD	Chief Medical Director
CME	Chief Mechanical Engineer
CMI	Commercial Inspector
CMM	Chief Materials Manager
CMPE(Diesel)	Chief Motive Power Engineer (Diesel)
CMS	Chief Medical Superintendent
CNB	Station Code for Kanpur
COM	Chief Operations Manager
Con.	Construction
COS	Controller of Stores
CPO	Chief Personnel Officer
CPRO	Chief Public Relations Officer
CPTM	Chief Passenger Transportation Manager
CPU	Station Code for Chopan
CRB	Chairman Railway Board
CRS	Commissioner of Railway Safety
CRSE	Chief Rolling Stock Engineer
CSC	Chief Security Commissioner
CSE	Chief Signal Engineer
CSO	Chief Safety Officer
CSTE	Chief Signal & Telecommunication Engineer
CTE	Chief Track Engineer
CWE	Chief Workshop Engineer
CWI	Carriage & Wagon Inspector
DFM	Divisional Finance Manager
DCM	Divisional Commercial Manager
Sr.DMM	Sr. Divisional Material Manager
DEE	Divisional Electrical Engineer
DEN	Divisional Engineer
DG	Director General
DHN	Station Code for Dhanbad
DHO	Station Code for Dhaulpur
DLI	Station Code for Delhi
DM	Disaster Management
DM	District Magistrate
DME	Divisional Mechanical Engineer
DMO	Divisional Medical Officer
DMT	Disaster Management Team
DMU	Diesel Multiple Unit

DNR	Station Code for Danapur
DOM	Divisional Operations Manager
DOT	Department of Telephones
DPO	Divisional Personnel Officer
DR	Disaster Response
DRM	Divisional Railway Manager
DSC	Divisional Security Commissioner
Sr. DEN (Co)	Sr. Divisional Engineer ((Co-ordination
DSO	Divisional Safety Officer
DSTE	Divisional Signal & Telecommunication Engineer
DTM	Divisional Traffic Manager
Dy.	Deputy
Dy. CCM	Deputy Chief Commercial Manager
Dy. COM	Deputy Chief Operations Manager
Dy. CSO	Deputy Chief Safety Officer
E-Mail	Electronic Mail
EC	Emergency Control
ECR	East Central Railway, Hajipur
ED	Executive Director
EMC	Electro Mechanical Core
EMU	Electric Multiple Unit
Engg.	Engineering
ETH	Station Code for Etah
TL	Train Lighting
FA	First Aid
FA	Financial Advisor
FA & CAO	Financial Advisor and Chief Accounts Officer
FKD	Station Code for Farrukhabad
FR	First Responders
(G)	General
GGC	Station Code for Gangapur City
G & SR	General & Subsidiary Rule
GM	General Manager
GRP	Govt. Railway Police
GWL	Station Code for Gwalior
GZB	Station Code for Gaziabad
HGJ	Station Code for Harduaganj
HOD	Head of Department
HOR	High Official Requisition
HPC	Hindustan Petroleum Corporation
HQ	Hqtr.
HRE	Hydraulic Rerailing Equipment
HRD	Hydraulic Rescue Device
HRF	Station Code for Hathras Fort
HRS	Station Code for Hathras Jn.

IAF	Indian Air Force
IAT	Instant Action Team
IG	Inspector General of Police
IR	Indian Railways
IRCM	Indian Railway Commercial Manual
IRCTC	Indian Railway Catering & Tourism Corporation
IRMM	Indian Railway Medical Manual
IOC	Indian Oil Corporation
ISD	International Subscriber Dialing
IT	Information Technology
JA	Junior Administrative
JCB	Jack-cum-Bulldozer
JE	Junior Engineer
JHS	Station Code for Jhansi
Jn.	Junction
JP	Station Code for Jaipur
KID	Station Code for Khairar
LC	Level Crossing
LCC	Local Command Center
LI	Loco Inspector
LKO	Station Code for Lucknow
LPG	Liquefied Petroleum Gas
LR	Leave Reserve
MB	Station Code for Moradabad
MG	Meter Gauge
MGS	Station Code for Mughal Sarai
MOR	Ministry of Railways
MOSR	Minister of State for Railways
MP	Madhya Pradesh
MR	Minister for Railways
MRV	Medical Relief Van
NG	Narrow Gauge
NGO	Non-Govt. Organization
NKJ	Code for New Katni Jn
NR	Northern Railway
NCR	North Central Railway, Allahabad
NWR	North Western Railway, Jaipur
OC	Officer-in-Charge
OHE	Over Head Equipment
Op.	Operations
PA	Public Address
PC	Personal Computer
PCE	Principal Chief Engineer
PCO	Public Call Office
PHOD	Principal Head of Department
POL	Petroleum & Oil

PR	Public Relations
PRC	Power Controller
PRO	Public Relations Officer
PSU	Public Sector Undertaking
P Way	Permanent Way
PWL	Station Code for Palwal
RAC	Station Code for Rosa
RCT	Railway Claims Tribunal
NCR	North Central Railway
RE	Railway Electrification
RG	Rest Giver
RMS	Railway Mail Service
RPF	Railway Protection Force
RSO	Rolling Stock Organisation
S & T	Signal & Telecommunication
SDGM	Senior Deputy General Manager
SE (P-Way)	Section Engineer (P-Way)
Secy.	Secretary
SHO	Station House Officer
SSE(C&W)	Senior Section Engineer(C& W)
SSE (S&T)	Senior Section Engineer (S & T)
SI	Sub-Inspector
SJAB	St. John Ambulance Brigade
8KB	Station Code for Shikohabad
SLR	Second Class-cum-Luggage-cum-Brake Van coach
SM	Station Manager
SP	Self Propelled
SPARMV	Self Propelled Accident Relief Medical Van
SPART	Self Propelled Accident Relief Train
SO	Staff Officer
SOE	Station Code for Seopur Kalan
SOS	International Call of Distress Signal
Sr.	Senior
Sr. DFM	Senior Divisional Finance Manager
Sr. DCM	Senior Divisional Commercial Manager
Sr. DEE	Senior Divisional Electrical Engineer
Sr. DEN	Senior Divisional Engineer
Sr. DME	Senior Divisional Mechanical Engineer
Sr. DMO	Senior Divisional Medical Officer
Sr. DOM	Senior Divisional Operating Manager
Sr. DPO	Senior Divisional Personnel Officer
Sr. DSC	Senior Divisional Security Commissioner
Sr. DSO	Senior Divisional Safety Officer
Sr. DSTE	Senior Divisional Signal & Telecommunication Engine
SRMT	Station Code for Srimuttra

SSE	Senior Section Engineer
STD	Subscriber Trunk Dialing
STM	Senior Transportation Manager
SS	Station Superintendent
TCM	Telecommunication Maintainer
TCI	Telecommunication Inspector
TDL	Station Code for Tundla
TI	Traffic Inspector
TRD	Traction Distribution
TS	Train Superintendent
TTE	Travelling Ticket Examiner
UCC	Unified Command Center
UP	Uttar Pradesh
VHF	Very High Frequency
VPU	Bogie Motor Cum Parcel Van
WCR/JBP	West Central Railway, Jabalpur
WLI	Welfare Inspector
WTT	Working Time Table

DISASTERS

(Chapter - 1)

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 In that area, due to natural or man-made causes, that may lead to loss of many lives and / or grievous injuries to a large number of people, and/or severe disruption of traffic, necessitating large scale help from other Government / Non-government and Private Organisations."

(Board's letter No. 2003/Safety/Safety (DM)/6/2 Pt. dated 06.0,1.09)

(A) TYPES OF DISASTER CAUSING INTERRUPTION TO TRAIN SERVICES ;

Human/Equipment failure :

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

- Collisions.
- Derailments.
- Level crossing accidents at Manned/Unmanned Level Crossings.
- Fire on Train.

Natural Calamities :

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

- Landslide.
- Earth quakes.
- Floods.
- Storm/Cyclones/Tornadoes.

Sabotagei

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

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

(B) LEVELS OF DISASTER CAUSING INTERRUPTION TO TRAIN SERVICES ;

Railway accidents can be categorized into different levels:

- Accidents of a magnitude which can be managed by the concerned divisional authorities;
- Accidents of a magnitude which may require assistance from neighboring divisions but can be managed by the Zonal Railway; and
- Accidents of a magnitude which may require assistance from Army, NDRF and other civil authorities.

- (C) Railway Board has also approved the proposal to nominate either GMs, AGMs or CSOs for declaring an untoward incident as a Railway disaster. If the accident is declared as Disaster, all instructions contained here in this disaster management plan would automatically come into force, and officers and staff of all departments would take action as laid down in this book.

DISASTER PREPAREDNESS - AVAILABILITY OF RESOURCES

(Chapter - 2)

Railways are generally self-reliant in carrying out rescue and relief operations as a result of having a well organized set up including ARMVs and ARTs. However, major accidents, involving heavy casualties in remote areas or in difficult terrain or under adverse weather conditions are possible to be managed efficiently only by mobilizing non-railway resources.

Disaster Management mechanism in Railways can be maintained at a high level of preparedness and efficiency by keeping all resources readily available and in good fettle. Resources imply both railway and non-railway men and material including medical personnel, transport, volunteers, police and fire services. Details of these resources, their location, contact numbers and other details have been identified, compiled and placed in a Data Bank'. This Data Bank is available in the divisional DM Plans of Allahabad, Jhansi and Agra divisions respectively. These have also been put on NCR's Web Site www.ncr.indianrailways.railnet.gov.in for ready access.

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

1. Resource Unit I - Railway and non-railway resources available on the train, and at nearby surroundings.
2. Resource Unit H - Railway resources available at ARMV/ART depots and elsewhere within the division.
3. Resource Unit HI - Railway resources available at ARMV/ART depots and elsewhere on adjoining Zones and Divisions.
4. Resource Unit IV - Non-railway resources available within or outside the division.

1. Resource Unit - I :

(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 & Fire Extinguishers in Locomotives.
- (v) Walkie-Talkie with Guard and Loco Pilot/ Cell phones/CUG Phone with Loco Pilot, Guard & TTEs
- (vi) Cell Phones/Mobile communications with Passengers.
- (vii) Information collected by Train Superintendent/Travelling Ticket Examiner about Medical Practitioners travelling on the train.
- (viii) Information collected by TS/TTE about Railway Officers travelling on the train,
- (ix) Railway Staff travelling on the train - either on duty or on leave as passengers,
- (x) Passengers travelling on the train who volunteer their help for rescue and relief work.

(b) Non - railway resources available nearby ;

- (i) Volunteers from nearby villages and towns.
- (ii) Transport facilities available at site or passing through nearby LC Gates.
- (iii) Tractors with trolleys from nearby villages both for transport purposes and for lighting up the accident site.
- (iv) Station staff and local railway administration should requisition help from non-railway sources before railways 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.

(d) At adjoining Stations ;

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

2. Resource Unit • II ;

- (i) AMRVs, ARTs with 140T crane are stabled at nominated stations. Their locations are given in Chapter - 3.
- (ii) Railway medical and departmental resources.

3. Resource Unit - HI ;

- (i) Location of AMRVs-, ARTs with 140T crane based on adjoining Zones/Divisions are given in Chapter - 3.
- (ii) Section wise chart of which ARM Vs/ ARTs are to be requisitioned from adjoining Zones/Divisions is given in Chapter - 3.
- (iii) Resources of men and material available on adjoining Zones/Divisions are given in their data bank and included in the Zonal/Divisional DM Plans of respective Zones/Divisions,
- (iv) Copies of DM Plans of adjoining divisions should be available with the divisional control offices.

4. Resource Unit - IV ;

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

DISASTER PREPAREDNESS - ARMVs/ARTs

(Chapter - 3)

A. ACCIDENT RELIEF MEDICAL VAN :

1. ARMY Scale I - Equipment stored in Special Medical Relief Vans stabled in separate sidings :

- (i) Locations of ARMV Scale I are given below in (A2).
- (ii) One key of the van is available with the Loco Foreman or the Station Master in a glass fronted case.
- (iii) Other key is with the doctor in charge of the ARMV.
- (iv) Medicines and equipment are provided as per Railway Board norms,
- (v) Keys of all locks inside the ARMV are also in duplicate. One set of keys is with the Medical Officer in charge of the ARMV and the other set of keys are kept in a glass-fronted case inside the ARMV.
- (vi) The target time for turning out of ARMV is 20 min. by day and 30 min. by night from the time of sounding of siren.

Siren codes for ordering of ARTs and ARMVs are as under:

Circumstances	Code
For accidents in Loco Shed /Traffic Yard adjoining Loco Shed.	2 Long (Each to 45 Seconds Duration with 5 Seconds Break in Between)
For accidents outside the home station but main line clear, only relief train without medical van is required.	3 Long (Each to 45 Seconds Duration with 5 Seconds Break in Between)
For accidents outside the home station but main line clear, relief train with medical van is required.	4 Long (Each to 45 Seconds Duration with 5 Seconds Break in Between)
For accidents outside the home station and main line blocked, relief train without medical van is required.	5 Long (Each to 45 Seconds Duration with 5 Seconds Break in Between)
For accidents outside the home station and main line blocked, relief train with medical van is required.	1 Long hooter of 90 Seconds

2. Location of ARMV Scale - I :

Scale - I ARMVs on North Central Railway are located as follows :

- (a) Allahabad Division:
 - (i) Allahabad - (SP - ARMV).
 - (ii) Kanpur. - Conventional
 - (iii) Tundla. - Conventional

- (b) Jhansi Division :
 - (i) Jhansi SPART/SPRMV
 - (ii) Banda - Conventional
- (c) Agra Division :
 - (i) Agra Cantt. SPARMV

3. Location of ARMV Scale - I on adjoining Zones/Divisions :

ARMVs Scale - I on adjoining Zones/Divisions are located as follows :

- (i) Chopan (Dhanbad Division, ECR).
- (ii) Barwadih (Dhanbad Division, ECR).
- (iii) Gaya (Dhanbad Division, ECR).
- (iv) Mughal Sarai (Mughalsarai Division, ECR).
- (v) Lucknow (Lucknow Division, NR).
- (vi) Rosa (Moradabad Division, NR).
- (vii) Moradabad (Moradabad Division, NR).
- (viii) Delhi (Delhi Division, NR).
- (ix) Jaipur (Jaipur Division, NWR).
- (x) Bandikui (Jaipur Division, NWR).
- (xi) Gangapur City (Kota Division, WCR).
- (xii) Bina (Bhopal Division, WCR).
- (xiii) Bhopal (Bhopal Division, WCR).
- (xiv) New Katni Jn. (Jabalpur Division, WCR).

4. Section wise chart for requisitioning of ARMVs from adjoining Zones/Divisions from both ends :

	<u>1st</u>	<u>Other End</u>	<u>2 Extra ARMVs</u>
(a) <u>Allahabad Division :</u>			
(i) CAR- CPU	ALD	CPU (DHN/ECR)	MGS (MGS/ECR) BRWD (DHN/ECR)
(ii) MGS- ALD	ALD	MGS (MGS/ECR)	CNB GY A (DHN/ECR)
(iii) ALD- CNB	ALD	CNB	TDL MGS (MGS/ECR)
(iv) CNB- TDL	CNB	TDL	ALD, AGC
(v) TDL - GZB	TDL	DLI (DLI/NR)	CNB MB (MB/MR)

(vi)	ALJN-HGJ	TDL	MB (MB/NR)	CNB RAC (MB/NR)
(vii)	ALD- MKP	ALD	BNDA	CNB, JHS

For following dead ended sections of Allahabad Division, ARMV will be sent as follows:

(vii)	8KB - FKD	TDL,	CNB
(viii)	BRN - ETH	TDL,	CNB
(ix)	MRS - HRF	TDL,	CNB

(b) Jhansi Division

(i)	BINA - JHS	JHS	BINA (BPL/WCR)	BNDA BPL (BPL/WCR)
(ii)	JHS - AGC	JHS	AGC	BNDA, TDL
(iii)	JHS - CNB	JHS	CNB	BNDA, ALD
(iv)	JHS - BNDA	JHS	BNDA	ALD, CNB
(v)	BNDA - ALD	BNDA	ALD	JHS, CNB
(vi)	KID - CNB	BNDA	CNB	JHS, ALD

For following dead ended section of Jhansi Division, ARMV will be sent as follows:

(vii)	AIT - KOANCH	JHS, CNB
(viii)	MBA - KURJ	BHDA, JHS
(ix)	LAR - KURJ	BHDA, JHS
(x)	GWL - BIX	JHD, AGC

For following dead ended NG sections of Jhansi Division, ARME Scale II equipment will be sent as follows:

(xi)	GWL - SOE	GWL
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(c) Agra Division :

	<u>1st</u>	<u>Other End</u>	<u>2 Extra ARMVs</u>
(i)	AGC - PWL	AGC	DLI (DLI/NR)
(ii)	AGC - DHO	AGC	JHS
(iii)	BHA - ETW	AGC	TDL
(iv)	AGC - TDL	AGC	TDL
(v)	AGC - BXN	AGC	KTU (KOTA/WCR)
(vi)	MTJ-AWR	AGC	KTU (KOTA/WCR)
(vii)	AF-BKI	AGC	BKI (JP/NWR)
(viii)	MTJ - AH/BDB	AGC	TDL
(ix)	MTJ - BDB (MG)	BY ROAD	TDL

For following dead ended NG sections of Agra Division, ARME Scale II equipment will be sent as follows:

(x)	DHO-SRMT	DHO
(xi)	DHO- TPO	DHO

5. ARME Scale II - Equipment stored in boxes in Special room on platform at station ;

- (i) Locations of ARME Scale n are given below in (A6).
- (ii) The medical equipment are kept sealed without any lock,
- (iii) The Scale n room has duplicate keys.
- (iv) One is with the Medical officer and the other is in Station Master's Office,
- (v) These are to be taken out and rushed to the site of an accident by any train or available road vehicle.

6. Location of ARME Scale - II ;

Scale - II ARMEs on North Central Railway are located as follow:

(a) Allahabad Division:

- (i) Khurja Jn.
- (ii) Aligarh.
- (iii) Mainpuri.
- (iv) Etawa.
- (v) Phaphund.
- (vi) Fatehpur.
- (vii) Mirzapur.
- (viii) Churk.
- (ix) Manikpur

(b) Jhansi Division:

- (i) Gwalior.
- (ii) Orai

(c) Agra Division :

- (i) Mathura.
- (ii) Dhaulpur.

(B) ACCIDENT RELIEF TRAIN ;

1. Accident Relief Train :

- (i) ART Locations .are given below in (B2).
- (ii) ART Special formation is stabled complete on a separate siding having double entry for faster exit in both directions,
- (iii) Rescue/Restoration equipment are kept as per Railway Board's instructions.
- (iv) ART keys are with the following officials:
 - Engineering Tool Van SSE/SE/JE/Permanent Way.
 - Mechanical Tool Van SSE/SE/JE/Mechanical.
 - Over Head Equipment Tool Van SSE/SE/JE/ OHE/TRD.

- (v) SPART is propelled by an inbuilt Diesel Engine and is capable of movement in both directions,
- (vi) Crane Supervisor will ensure availability of adequate fuel and water in the crane at all times.
- (vii) On getting emergency call, the Crane Supervisor shall check and ensure:
 - Correct marshalling of Crane according to site requirement.
 - Alert the stand by Crane Operator of 140T Crane,
- (viii) In case road approach is faster, re-railing equipment may be moved by road as required.
- (ix) The target time for turning out of ART is 30" by day and 45" by night from the time of sounding of siren.

2. Location of ARTs ;

- (a) Allahabad Division:
 - (i) Kanpur (A Class, 140T crane, bulldozer),
 - (ii) Allahabad (B Class),
 - (iii) Tundla (B Class).
- (b) Jhansi Division:
 - (i) Jhansi (A Class, 140T crane),
 - (ii) Banda (SPART) B Class,
 - (iii) Gwalior (Lucas Tool van),
 - (iv) Gwalior (NG) B Class.
- (c) Agra Division :
 - (i) Agra Cantt. (A Class, 140T Crane).
 - (ii) Dhaulpur (NG) C Class

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

- (i) Barwadih (Dhanbad Division, ECR).
- (ii) Mughalsarai (Mughalsarai Division, ECR).
- (iii) Lucknow (Lucknow Division, NR).
- (iv) Delhi (Delhi Division, NR).
- (v) Jaipur (Jaipur Division, NWR).
- (vi) Gangapur City (Kota Division, WCR).
- (vii) Bina (Bhopal Division, WCR).
- (viii) New Katni In. (Jabalpur Division, WCR).

2. Location of Brake Down Special (ART without Crane) on adjoining Zones/Divisions ;

- (i) Chopan (Dhanbad Division, ECR).
- (ii) Danapur (Danapur Division, ECR).
- (iii) Moradabad (Moradabad Division, NR)
- (iv) Bandikui (Jaipur Division, NWR)
- (v) Bhopal (Bhopal Division, WCR).

Section wise chart for requisitioning of ARTs with 140T Crane from adjoining Zones/ Divisions from

the other end

		<u>From Two Ends</u>	<u>2 more BDs w/o Crane (a)</u>
(a)	<u>Allahabad Division</u>		
(i)	CAR - CPU	MGS (MGS/ECR) BRWD (DHN/ECR)	ALD CPU (DHN/ECR)
(ii)	MGS - ALD	CNB MGS (MGS/ECR)	ALD DNR (DNR/ECR)
(iii)	ALD - CNB	CNB MGS (MGS/ECR)	ALD, TDL
(iv)	CNB - TDL	CNB DLI (DLI/NR)	ALD, TDL
(v)	TDL - GZB	CNB DLI (DLI/NR)	TDL MB (MB/NR)
(vi)	ALJN - HGJ	CNB LKO (LKO/NR)	TDL MB (MB/NR)
(vii)	ALD - MKP	ALD BNDA	CNB, JHS

For following dead ended sections of Allahabad Division, ART will be sent as follows :

(vii)	SKB - FKD	CNB, TDL
(viii)	BRN - ETH	CNB, TDL
(ix)	MRS - HRF	CNB, TDL

(b) Jhansi Division :

(i)	BINA - JHS	JHS BINA (BPL/WCR)	BNDA BPL (BPL/WCR)
(ii)	JHS - AGC	JHS, DLI (DLI/NR)	BNDA, AGC
(iii)	JHS - CNB	JHS, CNB	BNDA, AGC
(iv)	JHS - KID	JHS, CNB	BNDA, AGC
(v)	KID - CNB	JHS, CNB	BNDA, AGC
(vi)	KID - ALD	JHS, CNB	BNDA, ALD

For following dead ended section of Jhansi Division, ART will be sent as follows :

(vii)	AIT - KOANCH	JHS, CNB
(viii)	MBA - KURJ	BHDA, JHS
(ix)	LAR - KURJ	BHDA, JHS
(x)	GWL - BIX	JHD, AGC

For following dead ended NG sections of Jhansi Division, ARME Scale n equipment will be sent as follows :

(c)	<u>Agra Division :</u>	<u>From Two Ends</u>	<u>2 more BDs w/o Crane</u>
(i)	AGC - PWL	DLI (DLI/NR)	JHS, TDL

(ii)	AGC - DHO	AGC, JHS	TDL, BNDA
(iii)	BHA - ETW	AGC, TDL	
(iv)	AGC - TDL	JHS, CNB	AGC, TDL
(v)	AGC - BXN	JHS KTT (KTT/(WCR)	AGC, TDL
(v)	MTJ - AWR	JHS (JP/NWR)	AGC
	AF-BKI	JPS/DLI (DLI/NR) JP (JP/NWR)	AGC
(vi)	MTJ - AH	Kasganj	AGC, TDL

Meter Gauge

(ix) MTJ-BDB by road

For following dead ended NG sections of AGRA Division, ART Scale II equipment will be sent as follows:

- (x) DHO - SRMT DHO
- (xi) DHO - TPO DHO

(C) USE OF ACCIDENT ALARM SIGNALS - SOUNDING OF ENGINE WHISTLE/HOOTER/STATION BELL ;

1. Long Range Electric Sirens :
 - (i) In case of an emergency when ordered by Divisional Control Office, take out the siren key.
 - (ii) If required break open the glass fronted case to take out the key and sound the siren,
 - (iii) The delayed action switch (the tubular lever switch marked 'accident warning' is used to give call of 3/4 minute duration each with half-minute interval between two successive calls. This switch shall be switched on and left in that position for a period of approximately 20 minutes to give the emergency call and then switched off.
 - (iv) If there is a failure of delayed action switch, manually operate the check switch to give calls of 3/4 minute duration with half-minute interval between two successive calls for a period of approximately 20 minutes.
2. At stations where electric sirens is either not provided or where electric siren has failed :
 - (i) Give 5 whistles/hooting or calls of 1-minute duration each with half-minute interval between two successive whistles/hooting using an engine if available. This shall be repeated twice at an interval of 3 minutes,
 - (ii) If an engine is not available ring the station bell continuously,
 - (iii) SM to advise Transportation, Medical, Mechanical, Electrical, Engineering and other staff.
3. Authority to order movement of ARMV & ART to site :
 - (i) On receipt of information about serious accident involving casualties, ARMVs and ARTs shall be ordered immediately,
 - (ii) This decision would be taken by the Dy CHC (Chg.) on duty and nobody's authorization would be required for ordering the same,
 - (iii) After sounding of siren the ARMV and ART should be run out within the stipulated target time.

DISASTER PREPAREDNESS - USE OF ON BOARD RESOURCES

(Chapter - 4)

1. PORTABLE TELEPHONE:

1. Types of Portable Telephones :

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

2. How to use Portable Telephones:

- (a) Overhead type :
 - (i) Fix "Y" bracket on the poles.
 - (ii) Use required number of poles available.
 - (iii) Connect the two wires to phone terminals.
 - (iv) Circuit on Red colour bracket side connects the section controller telephone line,
 - (v) Circuit on the Green colour bracket side connects the Deputy Chief Controller telephone line,
 - (vi) Link "Y" bracket on the circuit and rub it for clear communication.
- (b) Underground cable type :
 - (i) Look at Receiver Arrow sign for socket location on Over Head Equipment mast /location post and move towards the Arrow pointing direction.
 - (ii) On reaching EMC Socket location, open the socket by using the key kept hi the phone box where required.
 - (iii) Plug in the phone terminal properly for communication.
 - (iv) In electrified section this phone connects the Traction power controller and then link to section controller.

2. WALKIE - TALKIE SETS:

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

Use of BSNL/Cell phone/Mobile phones :

- (i) BSNL phone numbers with STD code for Railway Station in a Division are given in WTT (Working Time Table).
- (ii) WTT is available with Guard & LocoPilot
- (iii) Refer WTT for nearest Station contact number.
- (iv) BSNL phone numbers of important Stations are also available in Public Time Table.

3. EMERGENCY TRAIN LIGHTING BOX :

1. How to use ETL BOX ;

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

4. STRETCHER

5. FIRE EXTINGUISHER:

Fire extinguishers are available with guard, Locopilot & in AC coaches. All on board staff should be trained for use of fire extinguishers.

6. FIRST AID BOX :

These boxes are available with guard and N earleyG ang Regular equipment of first aid items should be ensured by guard.

DISASTER RESPONSE - OVERVIEW

(Chapter - 5)

1. Golden Hour

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

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

- (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.

2. Disaster Syndrome ;

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

- (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.

3. 3 Different phases of Disaster Response ;

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

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 be saved depends 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 who 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 whom function as a team. The three groups which are active during the above mentioned 3 phases of Disaster Response, may be classified as follows:

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

4. First Aid in Emergency i

(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, pinch and shake gently. If there is no response, then it means that the patient is unconscious.

(iii) A - AIR WAY :

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

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

(iv) B - BREATHING :

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

(v) C - CIRCULATION :

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

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

- (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 of 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 to give 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 airway or saliva and other secretions may get into windpipe. To avoid that, turn the casualty into recovery position and transport to hospital.



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

DISASTER RESPONSE - INSTANT ACTION TEAM

(Chapter - 6)

INSTANT ACTION TEAM (IAT) :

1. Instant Action Team comprises :

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

2. Pre - accident checklist of preparation for Members of Instant Action Team :

- (i) Generally, about 15" time elapses before information regarding occurrence of an accident reaches the Divisional Control Office. In case information can be conveyed immediately this time can be saved. This 15" time is of vital importance since it constitutes 25% of the 'Golden Hour',
- (ii) In case they have a Mobile, ensure that telephone numbers of all relevant officials such as those of divisional control offices etc. have been permanently fed into the Mobile for immediate use in an emergency,
- (iii) These important telephone numbers should cover all those sections where they are required to work their train either within their own division or even those of adjoining divisions,
- (iv) Divisions will get printed and circulate a DM Telephone Directory containing all such telephone numbers that are likely to be required in an emergency,
- (v) Whenever they are travelling at night they should keep a torch handy and secure it by some means. The torch will be of no use in an emergency if it cannot be taken out from inside the suitcase at that point of time; or if the torch cannot be located since it has fallen off due to severe jerk.

3. Duties of Guard, Loco Pilot and other Commercial Staff :

Detail duty list of Guard and Loco Pilot are laid down in the Accident Manual of Zonal Railways. Some of the more important ones are enumerated below:

(a) Guard :

- (i) Note the time of the accident and the location.
- (ii) Switch on the Amber Light, if provided, in Hashing Tail Lamp, in the rear of brake van.
- (iii) Inform Loco Pilot through 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 G&SR 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) 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 LocoPilot
 - (d) Co-Pilot 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 field telephone is constantly manned by a railway staff, (xv) Arrange protection of passengers' belongings and railway property with the help of railway staff, volunteers on train, RPF and GRP.
- (xvi) Stop running trains on adjacent line and utilize resources on that train,
- (xvii) In electrified section if OHE is affected, take steps to switch off OHE supply,
- (xviii) Arrange for transportation of injured to hospital,
- (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 you are relieved by a competent authority.

(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 walkie - talkie set.
- (iv) Inform Station Master on walkie - talkie set, if possible,
- (v) Protect the adjacent line, if required, and the train in front as per G&SR 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.
- (x) 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 Loco Pilot.
- (d) Co-Loco Pilot/Asstt. Loco Pilot 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.
- (xi) Render all possible assistance to the guard.
- (xii) Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed, (xiii) Log your activities. Do not leave the spot unless you are relieved by a competent authority, (xiv) If necessary detach Loco and take it to inform SM after suitable protecting the load from rolling.

(c) Train Superintendent/Travelling Ticket Examiners ;

- (i) Preserve reservation charts of each coach containing names of passengers who actually traveled 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 ARMV arrives,
- (v) Prepare a separate list of dead passengers with address and ticket particulars, if available.
- (vi) Take assistance of local people and other volunteers at site, (vii) Transport injured passengers by road vehicles, if available, to the nearest hospital,
- (viii) Inform stranded passengers about alternative transport arrangement, (ix) Record Evidences or statement given by passengers/others at site.

(d) 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.

(e) RPF and GRP staff ;

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

4. Railway Staff travelling on the accident affected train ;

- (i) Whenever a train is involved in a serious accident with casualties/injuries to passengers, all

railway staff travelling on the train either on duty or on leave are deemed to be duty with immediate effect,

- (ii) Under no circumstance should any of them leave the accident site unless and until divisional officers arrive, take over charge of rescue and relief operations, and permit them to leave,
- (iii) Railway staff on train/at site shall volunteer themselves to render assistance and report to Guard of the Train,
- (iv) The senior most officer travelling on the train will assume charge as Officer Charge Site (OC Site),
- (v) Normally the senior most officer will be travelling in either the 1AC or in 2AC coach; and most probably in the HOR quota section of the coach. The HOR section of 2AC is invariably in the center of the coach (berth nos. 19 - 22). In any case the TS/TTE would know who are the railway officers travelling in 1AC or 2AC. (vi) Similarly, other railway staff will be travelling in SAC coach; and most probably in the HOR quota section of the coach. The HOR section of SAC is also in the center of the coach (berth nos. 25 - 30).
- (vii) Similarly, some Group 'D' railway staff may be travelling in Sleeper coach; and probably in the HOR quota section of the coach. The HOR section of a Sleeper coach is located in the center of the coach (berth nos. 33 - 40). (viii) In the absence of any officer, the TS or senior most TTE/Guard will discharge duties listed out for OC Site.

5. Duties of OC Site - Immediately after the accident ;

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

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

- (i) OC Site shall immediately collect all Railway staff on train/at site and form separate groups.
- (ii) Passengers travelling by the same train who volunteer for rescue and relief work should also be drafted into these groups.
- (iii) Passengers from accident-involved coaches should be directed towards their own coach.
- (iv) Passengers from coaches which are not effected can be distributed amongst other accident-involved coaches.
- (v) In the absence of OC site, TS/TTE shall take steps to form such groups.
- (vi) In the absence of TS/TTE the Guard shall take steps to form such groups.
- (vii) 5 or 6 groups should be formed depending on number of coaches involved.
- (viii) Ideally, one group should be formed for handling each coach.
- (ix) In case sufficient number of officers are present, then one officer should be made in-charge of each group.
- (x) Otherwise, Sr. Supervisors travelling by the accident involved train should be nominated as in-charge of each group to co-ordinate it's working.
- (xi) In case sufficient number of Sr. Supervisors is also not present, one TTE should be nominated as in-charge of each group to co-ordinate it's working.
- (xii) Each group should rescue injured, entrapped passengers.

7. Duties of on board railway staff immediately after the accident :

- (i) Don't panic. Once the accident has already occurred and the train has come to a standstill nothing worse can happen,
- (ii) In case you have a Mobile and it is working, inform the divisional control office immediately about the accident,
- (iii) Observe the position in which your coach has stopped; whether it is standing upright or turned upside down or lying on its side,
- (iv) Try and see whether your coach has stopped on a bridge or whether there is level ground on both sides,
- (v) In case the coach is on a bridge or very high embankment or in case it is raining heavily, then it is better to wait for some time and not be in a hurry to leave the coach. You may be jumping from the frying pan into the fire.
- (vi) Search your coach with your torch and try to determine the general position,
- (vii) See that passengers don't panic either. Passengers sometimes make things worse for themselves by panicking at this critical moment. Try to calm them and build up then-confidence,
- (viii) Ascertain whether passengers are injured or not; and whether any of them are trapped or pinned down inside the debris.
- (ix) Call out aloud and find out whether there are any doctors present,
- (x) Doctors who are travelling in the coach should be asked to announce their presence so that they can attend to and help injured passengers,
- (xi) Call out aloud and find out whether there are any railway staff present.
- (xii) Railway staff who are travelling in the coach should be asked to announce their presence so

that they can attend to and help other passengers,

- (xiii) For each coach, form a core team comprising of railway staff available, doctors and 3 or 4 uninjured passengers from the same coach. This core team should take the lead in helping remaining passengers both injured and uninjured.

8. Duties of members of Instant Action Team - Till arrival of Divisional Officers ;

- (i) If a person is bleeding and loosing blood, or if he is unconscious, then in that case you have to act quickly. 'Golden Hour' should be kept in mind. You may have at the most only one hour's time on hand,
- (ii) In such cases, immediately administer First Aid to the injured passenger and try and stop further loss of blood,
- (iii) Persons trained in first aid may do 'Cardio Pulmonary Resuscitation'. This may save several lives,
- (iv) If the door is open and is accessible, then uninjured passengers should be helped to come out from the door.
- (v) In AC coaches the windows panes should be broken open in order to let in fresh air for the occupants, and thereafter to evacuate them,
- (vi) Non - AC coaches have one emergency exit window on each side. The position of this emergency window is 5th from the left when facing the line of windows from inside the coach. They are opposite berth nos. 23 and 57. In case the door is locked and jammed, try and open these windows so that some of the uninjured passengers can come out through the emergency exit,
- (vii) Special care should be taken while evacuating the old, infirm and children in order to ensure that they are not separated from their family members.
- (viii) Extrication of critically injured should be done under medical supervision as far as possible,
- (ix) In case medical supervision is not available, then critically injured passengers should be made to lie down on a bed sheet and thereafter taken out by 4 persons holding the four corners. This will ensure that no further damage takes place. (Bed sheets will be available in AC coaches),
- (x) Passengers who are bleeding from open cuts should be tied up with strips of cloth so as to reduce if not stop the bleeding altogether,
- (xi) It is better not to take out the luggage from inside the coaches at the first instance, for two reasons. Firstly, passengers both injured and uninjured should get preference in this evacuation process. Secondly, it may be safer for the luggage to be left inside where there are less chances of their being stolen or pilfered,
- (xii) After passengers have been evacuated from your coach, cross check with the reservation chart and against the name of each passenger note down as to whether he/she is injured or not.
- (xiii) After all passengers have been evacuated, water and eatables can be taken out gradually,
- (xiv) Building up confidence of injured passengers by suitable advice is of great importance,
- (xv) After helping evacuate all passengers from your coach go over to the unreserved coaches and provide similar help to those passengers also,
- (xvi) Railway officials from divisional Hqtr. generally arrive at the site of the accident within 2

to 3 hours, depending on the distance of the accident site from the divisional Hqtr. Wait for them to come and make further arrangements.

- (xvii) Grievously injured passengers who are bleeding or those who are unconscious require immediate hospitalization. In case some local people have arrived by that time, then: help should be taken in shifting the grievously injured to the nearest hospital.
- (xviii) In case your tram has been involved in an accident but neither has your coach derailed nor are any passengers of your coach injured, then you should go to the unreserved coaches and carry out the duties as listed above.

9. Duties of the Instant Action Team - In case of a fire :

- (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) Advise passengers to take a cloth, wet it in then- drinking water and cover then- 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 then- 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.

10. Duties of OC Site - till arrival of divisional officers :

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

(a) Locating nearby villages :

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

(b) Locating the nearest manned level crossing gate :

- (i) The tram Loco Pilot is the best and fastest source of information regarding location of the nearest manned level crossing gate in either direction.
- (ii) Send a messenger (preferably a railway staff) to the gate for contacting the

gatemanager.

- (iii) In most cases, the gateman will be able to give location of nearby villages, (iv) The messenger should then try and stop a passing vehicle and go to the nearby village, inform villagers and seek their assistance.

(c) **Organizing assistance from local people available in nearby villages**

- (i) Villagers should be asked to make an announcement from their loud speaker (generally available in the local temple, mosque, gurudwara, church etc.) informing others regarding the accident,
- (ii) Everybody should be asked to rush to the accident site with following :
 - tractor trolleys (both for transportation as also for general lighting),
 - as many cutting implements, hammers, chisels etc. as are available,
 - ropes,
 - ladders,
- (iii) If doctors or para-medical staff are available in the village they should also be sent to the accident site.
- (iv) The messenger should stay back and try and organize opening of a big building (preferably a school) for sheltering of injured passengers and/or preservation of dead bodies.

DISASTER RESPONSE - FIRST RESPONDERS

(Chapter - 7)

(A) Duties of First Responders - Local people :

1. At Accident site ;

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

2. In villages/towns ;

- (i) A big building, preferably a school building should be got vacated and made ready for keeping of dead bodies and unclaimed luggage of passengers,
- (ii) They should be asked to bring the following to the accident site for train passengers :
 -

- Tea and refreshments,
 - Warm clothing, if required.
 - (iii) Look after injured passengers who have been taken to the village.
 - (iv) Take injured passengers to the nearest hospital by means of any transport available.
- For this purpose, apart from tractor trolleys, even trucks passing on the highway can be utilized.

(B) Duties of First Responders - Railway Staff :

1. Gang Staff:

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

2. Gate men ;

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

3. Station Master at adjoining station :

(a) Conveying of information :

- (i) Arrange protection of traffic by keeping all signals at ON position,
- (ii) Report the accident to Station Master at the other end. He should be asked to call all off duty staff at his station and send them to the accident site.
- (iii) Report the accident to Section Controller, (iv) Control to be advised regarding -
 - Time and nature of accident.
 - Brief description of accident.
 - Adjacent lines clear or not.
 - Damage to rolling stock.
 - Damage to track hi terms of telegraph posts.
 - ORE masts damaged or not, and extent of damage.
 - Approximate number of dead and injured (grievous, simple) to be obtained from the TS/TTEs.
- (v) Following functionaries should be advised regarding the accident:
 - All off duty railway staff posted at that station.
 - SS of Junction stations at either end.
 - TI, CMI.

- P. Way Supervisors - SSE/JE etc.
 - TRD Supervisors - SSE/ JE etc.
 - C&W Supervisors - SSE/JE etc.
 - S & T Supervisors - SSE/ JE etc.
 - SI/RPF, SHO/GRP.
 - Nearest Fire Station,
- (vi) Inform civil authorities, village/town/city representatives and volunteers for possible relief assistance.
- (vii) Supervisory Station Manager of the nearest In. station shall proceed to accident site.
- (b) Medical assistance :**
- (i) Call for assistance from local Doctors, St. John's Ambulance Brigade, Civil and Army Hospitals.
 - (ii) Arrange adequate number of First Aid boxes and stretchers, (iii) Mobilize local medical team and send it to site to render First Aid to the injured,
 - (iv) Quickly transport ARME Scale - n equipment to the site of the accident.
- (c) Passenger assistance :**
- (i) Arrange drinking water, beverages and refreshments, either from Refreshment Room or local sources.
 - (ii) Supply beverages and refreshments free of cost to stranded passengers,
 - (iii) Open emergency counter and display necessary information,
 - (iv) Obtain reservation charts and display it.
 - (v) Collect information on dead/injured and convey it whenever asked for.
 - (vi) Make frequent announcements about diversion, cancellation, and regulation of train services,
 - (vii) Arrange for refund of fares as per extant rules.
- (d) Transport assistance :**
- (i) Arrange for transport from local resources, if available, for transporting injured passengers to nearest hospitals by fastest possible means.
 - (ii) For this purpose, apart from tractor trolleys, even trucks passing on the highway can be utilized.
 - (iii) Stranded passengers to be transported from the accident spot by arranging transshipment either by train or by hiring road vehicles.
- (e) Security assistance :**
- (i) Advise RPF/GRP/State Police to provide security to passengers, their belongings and railway property,
 - (ii) They should also be asked to assist in rescue and relief work.
- (f) Communication Assistance :**
- (i) Direct passengers to PCO booths available nearby, (ii) Issue free telegrams and make available STD phone to relatives of dead/ injured. Four CUG Phones are Provided in each ART.

(g) Sending manpower for site :

- (i) Proceed to site of the accident by quickest means with trolleys, coolies, lamps, vendors and any other equipment that is considered necessary.
- (ii) Till relieved by a Traffic Inspector or Divisional Officers be in charge of site and carryout rescue/relief operations,

(h) Preservation of clues and evidences :

- (i) TI/SS first reaching the site shall take action to preserve clues and evidences.
- (ii) Secure records related to accident in the Station/Cabin,
- (iii) Seal slides, levers, knobs and Relay room, if accident takes place within the Station limit.

4. Duties of TI/SSE (P WavVSE (S&T)/CWILLI :

(a) Rushing to accident site with men and material :

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

(b) Rescue and relief :

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

(c) Joint measurements and preservation of clues and evidences ;

- (i) Collect and record all evidences relating to the accident such as :
 - Condition of track, with special reference to alignment, gauge, cross levels, super elevation, points of mount and drop and any sign of sabotage etc.
 - Condition of Rolling stock with reference to Brake Power and braking gear.
 - All marks on sleepers, rails, locomotives and vehicles etc. especially for preservation of clues. Position of derailed vehicles. Prima facie cause of accident.
- (ii) Seize and seal the Train Signal Register, Log book, Private Number Book, Line Admission Book, Speed Recorder Chart and other relevant records.
- (iii) Note down the position of panel switches, indication, block instrument, condition of relay room, status of data logger, etc.
- (iv) Condition of switches, ground connections, point locking, occupancy of track circuit, details of damage to out door signal/point gears should be noted down,
- (v) Seize and seal the Speed Recording Graph and all other registers and repair logbook of the locomotive,
- (vi) Record, details of Brake Power and other aspects of Rolling stock as per

Proforma.

- (vii) Joint measurements of rolling stock should be taken,
 - (i) Note down observations, measurements of Loco etc. at site. If it is not possible' arrange for taking the reading at shed.
- (viii) These can also be recorded on a video or digital camera subject to availability,
- (ix) Details of all readings taken and position of all equipment noted should be jointly signed by supervisors of all 5 departments at accident site,
- (x) Obtain statement of staff involved in the accident,
- (xi) CWI shall prepare a sketch showing position of Rolling stock,
- (xii) SSE (P Way) shall prepare a final sketch indicating the position of track, with respect to alignment, point of mount, point of drop, OHE mast, point number etc.
- (xiii) Survey the situation, assess assistance required and issue message to Divisional Control Office,
- (xiv) Take charge of the situation pertaining to your own department and remain till Divisional officers arrive at the site.

DISASTER RESPONSE - OFFICERS AT DIVISION & HQTR

(Chapter - 8)

(A) GENERAL ;

1. Intimation of Accident - Divisional Control Office ;

- (i) In the Divisional Control Office, information regarding an accident is generally received either by the Section Controller or the TPC. (ii) In most cases, the First Information Report also intimates the approximate number of coaches involved and a rough estimate of the likely number of casualties (such as 'heavy casualties expected'),
- (iii) Accidents involving a passenger carrying train where the first information says that heavy casualties are expected, should prima-facie be treated as a Disaster,
- (iv) The moment information regarding an accident involving a passenger carrying train is received in the divisional control office, the accident bell in the control room should be sounded for alerting all on-duty. functionaries,
- (v) After all on-duty functionaries gather around the section control board they will collect details information about the accident,
- (vi) Each functionary will thereafter resume his position and take steps to set in motion activities required of him.
- (vii) TPC will switch off OHE in case it has not tripped. OHE will not be restored even on adjacent line unless confirmation has been received from site that adjacent line is not obstructed and OHE is alright, (viii) PRC will undertake the following action in the given order of priority:
 - (a) Give orders to Loco Foreman for sounding the siren for ARMVs and ARTs.
- (ix) Dy. CHC (Chg.) will first inform Hospital Casualty. Thereafter he will inform officers and supervisors as given below.
- (x) Each departmental functionary will inform divisional officers and supervisors of his department about the accident as detailed below:

<u>Functionary</u>	<u>Officers and Supervisors</u>
– Dy. CHC (Op).	Operating & Safety
– Dy. CHC (Chg.)	Hospital Casualty, DRM, ADRM, Medical
– TPC	Electrical
– PRC	Mechanical
– Engg. Control	Engineering, Personnel, Accounts
– Test Room	S&T, Stores
– Commercial Control	Commercial, Public Relations
– Security Control	RPF
- (xi) For this purpose, all functionaries working in the divisional control office will have a ready list of telephone numbers (Railway, BSNL and Mobile) of all officers and supervisors of their departments.
- (xii) After Dy. CHC (Chg.) has informed Hospital Casualty, DRM, ADRM and Medical Doctors, he will then inform Dy. CHC (Chg.) or Dy. CHC (Op) in Hqtr. Eme"rgency Control regarding the accident.

2. Intimation of Accident - Railway Doctors :

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

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

3. Intimation of Accident - Hqtr. Central Control Office :

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

– Dy. CHC (Op).	Operating & Safety.
– Dy. CHC (Chg.)	GM, Medical
– TPC	Electrical
– PRC	Mechanical
– Engg. Control	Engineering, Personnel, Accounts
– Test Room	S & T, Stores
– Commercial Control	Commercial, Public Relations
– Security Control	RPF
- (v) For this purpose, all functionaries working in the Central control office will have a ready list of telephone numbers (Railway, BSNL and Mobile) of all officers and supervisors of their departments.
- (vi) After Dy. CHC (Chg.) has informed GM and Medical Doctors, he will thereafter inform Safety Directorate's Emergency Cell in Railway Board, (vii) GM will inform CRB regarding the above accident.
- (viii) PHODs will inform their respective Board Members. In case PHOD is not available in Hqtr., then the next senior most officer of that department will inform his Board Member. (ix) CSO/Dy. CSO will inform CRS.
- (x) Dy. CMC (Chg.) will thereafter inform ALD Division control office regarding running out of 1 st Special train to the accident site carrying GM and other Hqtr. officers
- (ix) CSO/Dy. CSO will inform CRS.
- (x) Dy. CHC (Chg.) will thereafter inform ALD Division control office regarding running out of 1st Special train to the accident site carrying GM and other Hqtr. officers,
- (xi) Functionaries of different departments will also inform their respective departmental officers regarding timing of 1st Special train carrying GM and other Hqtr. officers to the accident site,
- (xii) In case the accident site is far off and going by air would be faster, then either helicopters or special Air Force planes may be organized from the IAF Base at Bamrauli, by Secy, to GM.

4. Informing Non - Railway Officials :

- (i) DM, SP and CMS of the district within which the accident site falls should be informed regarding the accident by the CHC.
- (ii) ADRM will inform the following regarding the accident:
 - IG/GRP,
 - ADG/GRP,
 - Divisional Commissioner,
 - Home Secretary.
- (iii) In case POL rake is involved, then IOC/BPC/HPC officials should also be informed,
- (iv) In case Mail bags of RMS are involved, then Postal officials should also be informed,
- (v) Telephone numbers of all DMs, SPs, CMSs and Divisional Commissioners are available in Divisional DM Plans,
- (vi) Telephone numbers of IOC, BPC and HPC officials are also available in the Divisional DM Plans.
- (vii) Telephone numbers of ADG/GRP, IG/GRP, and Home Secretary etc. of UP, MP, Rajasthan and Haryana are given in DM Plan.

5. Divisional Officers required to go to site :

- (i) All divisional officers required to go to the accident site should proceed by the ARMV, ART or by road. (DRM is empowered to decide, as per Accident Manual Chapter iv Note (iii) of Item No 33)
- (ii) Road vehicles should be sent to accident site separately. Maximum . number of road vehicles should be sent to accident site from Divisional Hqtr.
- (iii) ARMV shall be dispatched within 20" by day and within 30" by night after sounding of siren.
- (iv) DRM will proceed to the accident site. ADRM shall stay back at divisional Hqtr. for co-ordination work.
- (v) All Branch Officers should proceed to the accident site. For this, purpose, officers heading different branches within the same department are referred to as Branch Officers. For example, in Electrical department, TRD and 'General' will be considered to be separate branches and both will be required to go to site.
- (vi) The second senior most officer of each branch should stay back at divisional Hqtr
- (vii) Of the remaining officers from each branch, a majority of both Senior and Junior scale officers should also proceed to the accident site.
- (viii) Once it has become clear that the accident is a Disaster, then the 80/20 rule should be followed:
 - (a) 80% of all officers should go to the accident site, and only 20% should stay back at Hqtr.
 - (b) Similarly, 80% of all supervisory staff should go to the accident site, and only 20% should stay back at Hqtr.
- (ix) The complement of officers available in each department varies from division to division. Hence, Divisional DM Plans should specifically spell out, department wise, designations of officers who will be required to go to site, and those who will be required to stay back in Hqtr.
- (x) Divisional DM plans should also spell out the same thing for Supervisors of each department.

- (xi) Arrangements of Road Vehicles to proceed to accident site, indicating alternative vehicles as well, shall be indicated in Divisional DM Plans.
- (xii) Arrangements of vehicle drivers including spare drivers shall also be notified.

6. Supervisors required to go to Accident Site :

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

7. Hqtr. Officers required to go to site :

- (i) All Hqtr. officers required to go to the accident site should proceed by the 1st special train, which will be carrying GM and other officers from Hqtr.
- (ii) This special train shall be arranged by Allahabd Divisional Control Office, in consultation with Hqtr. Central Control. Scheduled departure time will be informed to Hqtr. officers by their departmental functionaries in Hqtr. Central Control,
- (iii) GM will proceed to the accident site. COM, shall stay back at zonal Hqtr. for co-ordination work,
- (iv) Department wise, designations of officers who are required to go to site, and those who will be required to stay back in Hqtr. is given below :

Department	Site		Hqtr.	
Medical	Principal Chief Medical Director	PCMD	Dy. Chief Medical Officer	Dy. CMD
Commercial	Principal Chief Commercial Manager	PCCM	Dy. Chief Commercial Manager (Claims)	Dy. CCM (Claims)
	Chief Commercial Manager (G)	CCM (G)	Dy. Chief Commercial Manager (G)	Dy. CCM (G)
	Chief Commercial Manager (M&R)	CCM (M&R)*		
Mechanical	Principal Chief Mechanical Engineer	PCME	Chief Workshop Engineer	CWE
	Chief Motive Power Engineer (DLS)	CMPE (DIs)	1 Junior Administrative Grade	
	Chief Rolling Stock Engineer	CRSE**		
Civil	Principal Chief Engineer	PCE	2 Junior Administrative Grade	
	Chief Track Engineer	CTE		
	Chief Bridge Engineer	CBE		
	3 Junior Administrative Grade			
Electrical	Principal Chief Electrical Engineer	PCEE	2 Junior Administrative Grade	
	Chief Electrical Locomotive Engineer	CELE		
	2 Junior Administrative Grade	2 JA Grade		
S&T	Principal Chief Signal & Telecom. Engineer	PCSTE	2 Junior Administrative Grade	
	Chief Signal Engineer	CSE		
	Chief Signal & Telecom. Engineer (Const.)	CSTE (Const.)		
	Dy. Chief Signal & Telecom. Engineer (Tele.)	Dy.CSTE(Tele.)		
Operating*	Principal Chief Operating Manager	PCOM	Chief Freight & Transportation Manager Deputy Chief Operating Manager (Coaching)	
Safety	Chief Safety Officer	CSO**		
Security	Chief Security Commissioner	CSC		
	Deputy Chief Security Commissioner	Dy. CSC		
Personnel	Principal Chief Personnel Officer	PCPO*		
Accounts	Principal Financial Advisor	PFA		
	Deputy Financial Advisor	Dy. FA (Traffic)		
Stores	Principal Chief Material Manager	PCMM	Chief Material Manager	CMM
	Deputy Chief Material Manager (G)	Dy. CMM (G)		

** All other J A Grade, Senior and Junior Scale officers.

* All other Senior and Junior Scale officers,

- (v) PHODs should issue local instructions based on the above regarding supervisors

who will be required to go to the accident site,

- (vi) Only 3 supervisors of each department should stay back in Hqtr. All others should go to the accident site.

(B) OPERATING DEPARTMENT ;

Duties of the Operating Department in Hqtr. are given in Chapter 9, under the heading 'Disaster Response - Co-ordination Centers'.

(C) SAFETY DEPARTMENT ;

CSO will proceed to accident site along with all other officers and supervisors of the Safety Organization.

(D) PUBLIC RELATIONS ;

Duties of the Public Relations Department are given in Chapter 15, under the heading 'Media Management Plan'.

(E) MEDICAL DEPARTMENT ;

1. Formation of two teams ;

- (i) On receipt of information regarding the accident where casualties are expected, the doctor on emergency duty in the hospital casualty would inform all other doctors and para medical staff concerned,
- (ii) Two teams of Doctors and Para medical staff would be formed, Team 'A' and Team 'B'.
- (iii) Team 'A' - headed by CMS/MS in-charge will rush to the accident site immediately by ARMV along with 12 -15 doctors and 15 - 20 paramedics,
- (iv) Team 'B' - headed by the senior most doctor amongst them will stay back at the divisional hospital and perform duties as given below,
- (v) In case the accident site is far away from divisional Hqtr., then injured passengers are unlikely to be brought back to the divisional hospital for treatment,
- (vi) In that case, only bare minimum number of doctors should be left behind for manning Team 'B' and most of the available doctors should be rushed to accident site as part of Team 'A'.

2. Duties of Team 'A' ;

These are listed in detail in Chapter 12, under the heading 'Site Management Plan - IT.

3. Duties of Team "B"¹ ;

- (i) Team 'B' will establish an Emergency Cell in the Casualty Unit of Railway Hospital,
- (ii) Contact adjoining divisions and organize movement of 2 more ARMVs to accident site, one from each end, as detailed in Chapter 3, Section (A4).
- (iii) Contact local hospitals (Railway/Govt/Private) near the accident site to and ask

them to rush their road ambulances along with necessary medical teams to the accident site immediately,

- (iv) Contact local hospitals (Railway/Govtl/Private) near the accident site to keep themselves in readiness to receive and provide medical treatment to injured passengers,
- (v) Data Bank of medical facilities along the track is available section wise for each division in Divisional DM Plans. Copy of Divisional DM Plans should be available in the Hospital Emergency of Railway Hospital.
- (vi) The above Data Bank is also available in the NCR Web Site Details of address, telephone no., facilities available etc. can be collected from this,
- (vii) Arrange to send the following in the 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end:
 - As many more medical teams as possible,
 - Adequate number of Safaiwalas other health workers,
 - Members of St. John Ambulance Brigade,
 - Scouts and Civil Defence personnel,
- (viii) Co-ordinate with MS/CMD of adjoining Divisions/Zones and ask them to send their medical teams to the accident site,
- (ix) These medical teams should be sent to the accident site by train/road or combination of train-cum-road, as feasible. In case suitable Railway vehicles are not available, taxis should be hired for this purpose,
- (x) Adequate number of following items should be arranged and sent to accident site for the purpose of handling dead bodies:
 - Shrouds.
 - Polythene covers for dead bodies.
 - Wooden Coffins.
 - Dry ice.
- (xi) One doctor will be available in Divisional Emergency Cell for maintaining liaison with UCC and the medical team at the accident site. Requirement of medicines required either at the accident site, or in various hospitals where patients have been admitted should be noted, procured and sent as required,
- (xii) Prepare Railway Hospital to receive and provide treatment to injured passengers, as and when they are brought back from accident site, (xiii) Arrange to send anti snake venom 4 vials and other items in cold chain carrier.

(F) COMMERCIAL DEPARTMENT :

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

- (iii) Similarly, CCM along with other HODs and other commercial officers from Hqtr. will proceed to accident site as detailed at Section (A7) above.

1. Transportation of men and material to accident site ;

- (i) As soon as the ARMV/ART siren sounds, 50TTEs/TCs and 50 licensed porters in uniform should be collected together and rushed to the accident site in the ART.
- (ii) The on duty commercial supervisor at the station at that point of time should ensure that they proceed by the ART itself and do not get left . behind. If 50 number of each is not available, then whatever numbers are available should be sent to the accident site by the ART.
- (iii) More TTEs/TCs can be sent by the 2nd and 3rd Special trains carrying backup logistic support to accident site, from each end. TTEs from the Divisional squad should also be utilized for this purpose.
- (iv) After the first batch of staff has proceeded to the accident site in the ART, the entire manpower of the commercial department should be mopped up in order to send them on the 2nd and 3rd special trains which would carry backup logistic support to the accident site, from each end. For this purpose 80% TCs/TTEs from the entire division should be sent, (v) 2nd and 3rd Special trains should carry the following:
 - 2 gas stoves, 4 gas cylinders, 1000 mineral water bottles, provisions for making poories, vegetables, tea, etc., would be rushed to the site. This will be augmented later if necessary. These will be arranged by the affected division and provided by catering personnel/IRCTC.
 - Sufficient cooks and catering staff from departmental catering or catering contractor (including IRCTC) would be ensured at the site for arranging tea, biscuits, packed meals like poories and vegetables to the stranded passengers, railways working force and other officials at site.
- (vi) Sr. DCMs should prepare section-wise nominations of catering agencies both departmental and private for rushing to site. This should be¹ available in Divisional DM Plans.

2. Helpline Enquiry Booths at stations :

(a) General ;

- (i) Helpline Enquiry Booths within NCR would be opened as below:
 - Originating and destination stations of the accident involved train. All junction stations within the jurisdiction of NCR falling, on the route of the train.
 - Divisional Hqtr.
 - Zonal Hqtr.
 - Any other station as may be decided.
- (ii) On NCR, Helpline Enquiry Booths would normally be required to be opened at following stations, depending on the route of the accident involved train:

- Allahabad,
- Kanpur,
- Jhansi,
- Gwalior,
- Agra Cantt.,
- Mathura.

- (iii) Helpline Enquiry Booths on other Zonal Railways would also be opened as follows :
- Originating and destination stations of the accident involved train.
 - All junction stations falling on the route of the train. Divisional Hqtr. of originating and terminating divisions. Zonal Hqtr. of originating and terminating Zonal Railways. Any other station as may be decided.
- (iv) All Helpline Enquiry Booths shall have DOT telephones with STD, Railway telephones with STD; fax machine, photocopier and a PC with Internet connection.
- (v) Helpline Enquiry Booths would be manned by computer literate Sr. supervisors on round the clock basis.
- (vi) Helpline Enquiry Booths within the accident-affected division should keep in touch with the Divisional Emergency Cell.
- (vii) Divisional Emergency Cell will collect updated information regarding all aspects of the accident from the UCC and pass on the same to:
- All Helpline Enquiry Booths within the division.
 - Emergency Cells of other divisions of NCR. Hqtr. Emergency Cell.
- (viii) Such information should be received from UCC by E-Mail and transmitted by E-Mail to all concerned. For this purpose all Helpline Enquiry Booths should be provided with PCs with Internet connection. E-Mail addresses of Helpline Enquiry Booths are given in Annexure-10.
- (ix) Similarly, Helpline Enquiry Booths outside the accident affected division, but within NCR jurisdiction should keep in touch with Divisional Emergency Cell of their respective divisions.
- (x) Hqtr. Emergency Cell will collect updated information regarding all aspects of the accident from the UCC and pass on the same to:
- Emergency Cells opened on other divisions of NCR,
 - Emergency Cells opened on originating and terminating Zonal Railways.
 - Safety Directorate's Emergency Cell in Railway Board,
- (xi) Helpline Enquiry Booths should not contact the accident site or the UCC directly.

(b) Accident details to be available :

- (i) Accident details would include, number of dead and injured.
- (ii) Break up of type of injuries, such as grievous, simple etc.
- (iii) Disposal of injured passengers in various hospitals.
- (iv) Names of injured passengers.

- (v) Officials incharge of Helpline Enquiry Booths would display the list of injured passengers on the notice board,
- (vi) For this purpose Computer printout of E-Mail received should be taken out and displayed at number of places at the station,
- (vii) Normally, list of injured passengers is available quickly since most injured passengers are conscious and are in a position to give details of their names, addresses etc.
- (viii) Identification of dead bodies takes much longer since either
 - They were travelling alone, or
 - Their companions are injured and are not in a position to identify them, or
 - Their companions have also perished,
- (ix) Under such circumstances it is possible to identify dead bodies only when relatives come from their hometown, (x) This aspect of identification of dead bodies and reasons for delay should be explained to the public.
- (xi) Number of dead bodies identified, and their names should be available, (xii) This information would continue to be updated once every 3 hrs. and would continue to be accessed for the next 4 to 5 days.

(c) Information regarding running of trains :

- (i) Departure of unaffected front portion of the accident involved train, and its expected time of arrival at destination.
- (ii) Departure of unaffected rear portion of the accident involved train, its diverted route, and expected time of arrival at destination.
- (iii) Expected date and time of starting of relatives special from originating and destination stations of the accident involved train, its stoppages enroute and its expected time of arrival at intermediate stations.
- (iv) Free passes to be given to relatives of dead and injured for going to the accident site. These passes will be issued by WLI who should be drafted into Helpline Enquiry Booths.
- (v) Details of other trains that were scheduled to run on the accident affected section, but have been:
 - Delayed,
 - Regulated,
 - Diverted,
 - Rescheduled,
 - Short terminated,
 - Cancelled.
- (vi) Above information regarding running of trains would be required for initial 24 hrs. only. Thereafter, number of enquiries regarding train running would be very few and far between.

(d) Refunds ;

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

(G) MECHANICAL DEPARTMENT :

- (i) Sr. DME as well as AME should proceed to site of accident. DME will be available in Divisional Control Office for providing backup support, (ii) Similarly, CME, CMPE(Dsl), CRSE and other J A grade officers from Hqtr. will proceed to accident site as detailed at Section (A7) above.

1. Rushing of men and material to site :

- (i) 2 ARTs with 140T crane should be moved to the accident site, one from each end as detailed in Chapter 3, Section (B5).
- (ii) In addition to above, Brake Down Special should be sent from other base stations within NCR, so that additional rescue equipment such as cutters, spreaders, hydraulic jacks etc. are available,
- (iii) BD Special without Crane should be requisitioned from adjoining divisions also so that additional rescue equipment such as cutters, spreaders, hydraulic jacks, generators, lighting equipment etc. are available as detailed in Chapter 3, Section (B5).
- (iv) The aim should be to ensure one ART with 140T crane along with one BD special at each end of the accident site,
- (v) Provision should be made for availability of standby crane driver on each ART working at site, so that ARTs can work round the clock,
- (vi) Road cranes of sufficient capacity should be arranged so that these cranes can start working from the center while the 140T cranes can continue working from either end.
- (vii) Trucks should be arranged for carrying BD equipment near to accident involved coaches, so that the site of accident can be approached from the middle, and more work centers can be opened up simultaneously.

(H) SECURITY DEPARTMENT :

- (i) Sr. DSC will proceed to the site by ARMV along with maximum number of RPF personnel. Only one officer will stay back at divisional Hqtr.
- (ii) Similarly, CSC/RPF will proceed to accident site along with Dy. CSC as detailed in Section (A 7) above. CSC/RPF will assume control and take necessary steps for discharging duties allotted to Security department.

1. Rushing of men and material ;

- (i) On receipt of first information the nearest RPF Post should muster maximum

available manpower within the shortest possible time and dispatch them to the scene of accident, by fastest available means, (ii) Simultaneously, the Post/Outpost hi charge would requisition additional manpower from adjoining RPF Posts.

- (iii) He should also pass on the information to Local Police and Police Control Room, local Fire Brigade, Hospitals, local voluntary organizations and the like at the earliest.
- (iv) Divisional Security Control shall get reinforcement- from neighboring posts/outposts, reserve line, divisional Hqtr. or zonal reserve and send them by the ART. If they could not be sent by the ART then they should definitely be sent by the 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end.
- (v) In case any RPSF battalion or Company is located in the vicinity, men can be requisitioned from there for dealing with such emergent situations till additional force is available from other sources,
- (vi) Additional RPF personnel from Zonal Hqtr. should be shouldered and sent to accident site.
- (vii) Additional RPF personnel available throughout the division should be alerted and sent to the accident site by the 2nd and 3rd special trains carrying backup logistic support of men and material, from each end.
- (viii) While sending reinforcement, the Divisional Security Control shall ensure that the necessary equipment required for rescue, recovery and protection of the scene of incident are provided as follows:
 - Torches (1 per person) and other lighting arrangements.
 - Nylon ropes (1 kms) and poles for segregating the affected area.
 - 4 loud speakers for making announcements.
 - 10 stretchers and first aid equipment.
 - 10 wireless sets for inter-communication.
 - Digital Camera for photographing the scene (both on negative and slide films)
 - Video recording of rescue and salvage operations and connected administrative arrangements.

2. Co-ordinate with Local Police ;

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

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

(I) ELECTRICAL DEPARTMENT ;

- (i) Sr. DEE(G) as well as AEE(G) should proceed to site of accident. DEE(G) will be available in Divisional Control Office for providing backup support."
- (ii) Sr. DEE/TRD as well as AEE/TRD should proceed to site of accident. DEE/TRD will be

- available in Divisional Control Office for providing backup support,
- (iii) Similarly, CEE, CELE, and other J A grade officers from Hqtr. will proceed to accident site as detailed at Section (A7) above.
 - (iv) Main responsibility of Electrical Department will be regarding site illumination and OHE.
 - (v) Maximum number of electrical staff should be sent by 2nd and 3rd Special trains for installation and operation of electrical equipment,
 - (vi) Officers staying back in divisional Hqtr. shall maintain constant liaison with site and find out quantum of assistance required by way of men and material, (vii) These should be rushed to accident site either from :
 - Railway sources within the division, or
 - Railway sources from adjoining divisions and zones, or
 - Non - Railway sources within the division.

(J) SIGNAL & TELECOMMUNICATION DEPARTMENT ;

- (i) Sr. DSTE as well as ASTEs should proceed to site of accident. DSTE will be available in Divisional Control Office for providing backup support,
- (ii) Similarly, CSTE along with HODs and other J A grade officers from Hqtr. will proceed to accident site as detailed at Section (A 7) above,
- (iii) Main responsibility of S&T Department will be for providing effective and adequate means of communication.

1. Rushing of men and material to site ;

- (i) Sr. DSTE along with ASTE will carry the following to the accident site:
 - Satellite phone,
 - FAX cum printer,
 - Two 25W VHF sets along with antenna and battery
 - 10 numbers 5W walkie-talkie sets.
- (ii) He will be accompanied with at least two TCI and two TCM.
- (iii) 6 more TCI/TCM, SE(S&T) of the section and maximum number of telecom staff should be sent for installation and operation of telecom equipment. They should go to the site of accident either by ART or latest by 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end.
- (iv) Satellite phones of HQ and Allahabad division and one FAX machine will be carried in GM special by at least two TCI and two TCM.
- (v) All mobile phones available with the Division should also be rushed to site for emergency use.
- (vi) Sufficient number of spare batteries and battery chargers for these mobiles should also be taken to accident site.

2. Arranging communication at site ;

- (i) DSTE in the division will immediately come to divisional control office and ensure setting up of all communication arrangements as required.

- (ii) DSTE will keep a record of the numbers of Railway telephones, BSNL telephones, IMMERSAT phones provided at site and telephones provided at Helpline Enquiry Booths. This information shall be passed on to the Divisional Emergency Cell.
- (iii) He should liaison with BSNL officials in the area for immediate provision of additional BSNL telephone/hot lines at the accident spot, nearest station and at Helpline Enquiry Booths duly utilizing assets under his disposal where required.
- (iv) Map of the division showing areas where cell phone connectivity is operative is available in Divisional DM Plans.
- (v) Should hire sufficient number of cell phones and send them to accident site.
- (vi) Obtain E-Mail addresses of Emergency Cells set up on other Divisional and Zonal Hqtr.

3. Communication at Hqtr. and Divisional Emergency Cells ;

- (i) Communication arrangements are required to be provided at NCR Hqtr. Emergency Cell immediately,
- (ii) 2 BSNL Telephones having ISD/STD facility are already available in the Hqtr. Central Control. Dynamic locking code of the telephone is available with CHC/Emergency. FAX machine is also provided on one BSNL. telephone in the Emergency control,
- (iii) Apart from this telephone, 4 other BSNL telephone numbers (2 with STD facilities) should be made available in Hqtr. Emergency Cell for use by Chief Emergency Officer. These should be temporarily transferred from officers' chambers,
- (iv) One FAX machine shall be provided on one BSNL telephone,
- (v) 2 Railway telephone numbers with STD facilities should also be made available,
- (vi) 2 Mobile telephones should also be made available in Hqtr. Emergency Cell,
- (vii) Similar Communication arrangements should also be provided in the Divisional Emergency Cell.

4. Communication at Helpline Enquiry Booths ;

- (i) Helpline Enquiry Booths are to be opened at all important stations enroute of the affected train as mentioned at Section (F2a) above,
- (ii) Location of these Helpline Enquiry Booths will be on Platform No.1 of their respective stations,
- (iii) 2 BSNL phones should be identified and kept pre-wired to the Helpline Enquiry Booths so that these can be energized at short notice,
- (iv) Similarly, 2 Railway phones should be identified and kept pre-wired to the Helpline Enquiry Booths so that these can be energized at short notice.
- (v) One FAX machine, Photocopier and PC with Internet connection and printer should also be provided at Helpline Enquiry Booths. These should also be kept pre-

wired so that these can be energized at short notice.

- (vi) E-Mail address of PCs to be provided should be intimated to all concerned. PCs should be configured with these E-Mail addresses as given at Annexure - 10.
- (vii) Stations at which such arrangements are to be made and telephones, which are to be utilized, should be identified by Sr. DSTE with approval of DRM.

(K) ENGINEERING DEPARTMENT :

1. Rushing men and material to accident site :

PCE along with HODs and other J A grade officers will proceed to accident site by the special train organized for this purpose as detailed at Section (A7) above.

DSE/C and Sr DEN concerned will proceed to the site of accident by ARMV. In the absence of DSE/C, the next senior most Sr DEN of the Division will proceed along with the concerned Sr DEN. In the absence of Sr DEN of the Section, Sr DEN of the adjoining Section will proceed by ARMV.

It is expected that ADEN and SE (P.Way) of the Section would have already reached the accident site before arrival of ARM V. In cases, where the SSE (P.Way) and ADEN are based at divisional Hqtr., they should move along with staff by ART. At least, 2 SSE/ Works and 1 SSE/Bridge should move along with their staff by the ART.

Officer nominated to attend Emergency Control will co-ordinate with (Irrigation Deptt.) regarding arrangement of Motor Boat & other requirements during Flood.

2. Mobilization of work force :

- (i) 1000 nos. of workmen are required to reach the site of the accident. 500 nos. along with 10 SSEs (P.Way) and 10 Black Smiths shall be arranged by the Division. For this purpose, labour specials will be run from the specified destination as decided by the Divisional Engineering Control.
- (ii) ½ km of rails, sleepers and fittings and one set of 1 in 12 and 1 in 8 t turnouts are available in the ART. The Mechanical and Operating Departments will ensure that part IC of ART (consisting of additional Engineering Material Wagons) shall follow the ART. The additional half km. of matching materials and one set of 1 hi 8 t and 1 in 12 turnouts shall be kept in the Track Depot of the Division. For loading of this material, 2 BFRs and 2 BCX wagons should be immediately placed in the Track Depot. -These material should be loaded within 3 hours and dispatched to the site of accident. This will be ensured by the SSE (P.Way) Track Depot and Divisional Engineering Control.
- (iii) At least two nos. of JCBs available with the ballast depot contractor shall be immediately moved.
- (iv) The bulldozer available at Kanpur ART will be moved by special train arranged by Allahabad Division.
- (v) Sr DEN/DEN in Divisional Emergency Control will request concerned authority (Army/State Govt.- Deptt.) for bulldozer/earthmoving machinery in the area.

(L) IT Department ;

Following information should be uploaded on to NCR's SIMS Website as quickly as possible:

- (a) List of injured and deceased passengers :
- Names of stations where Helpline Enquiry Booths have been opened along with their telephone numbers.
 - Accident details would include, number of injured passengers rescued.
 - Break up of type of injuries, such as grievous, simple etc. Disposal of injured passengers in various hospitals. Names of injured passengers - coach wise.
 - Number of dead bodies recovered. Number of dead bodies identified. Names of deceased passengers.
- (b) Details of trains, which have been diverted, regulated, short terminated, cancelled or rescheduled.
- (c) Details of special trains which are to be run:
- Passenger special carrying passengers of front portion of accident involved train.
 - Passenger special carrying passengers of rear portion of accident involved train.
 - Relatives special from originating and terminating stations of the accident involved train.

DISASTER RESPONSE - CO-ORDINATION CENTRES

(Chapter - 9)

1. Rushing of ARMVs & ARTs to accident site ;

- (i) After ARM Vs and ARTs have been ordered, PRC should locate diesel powers for these ARMVs and ARTs.
- (ii) First available diesel powers should be nominated, even by temporarily detaching from a Mail/Express train on run, if necessary,
- (iii) If diesel power is not readily available and OHE is functional up to the next junction station, then ARM Vs and ARTs should be moved out by Electric loco and diesel powers can be changed en-route,
- (iv) In case a diesel power is not available on the division, then it should be requisitioned from adjoining divisions,
- (v) Requisitioning of diesel power should be done from following sections in the given order of priority:
 - (a) Allahabad Division :
 - Main line sections of Allahabad division.
 - Kanpur - Jhansi section (JHS Div.).
 - Lucknow division (NR).
 - Branch line sections of Allahabad division.
 - Moradabad division (NR).
 - Allahabad - Manikpur section (JHS Div.).
 - Varanasi division (NER).
 - Mughalsarai division (ECR).
 - Demi division (NR).
 - (b) Jhansi Division:
 - Main line sections of Jhansi division.
 - Jhansi - Kanpur section.
 - Jhansi - Manikpur section.
 - Bhimsen - Khairar section.
 - Gwalior - Bhind section.
 - Jhansi diesel shed.
 - Other sections of Jhansi division.
 - Agra division. Bhopal division (WCR).
 - Jabalpur division (WCR).
 - (c) Agra Division :
 - Main line section of Agra division.
 - Agra - Bandikui section.
 - Mathura - Alwar section.
 - Other sections of Agra division.
 - Jhansi division.
 - Izzatnagar division (NER).
 - Demi division (NR).
 - Jaipur division (NWR).

- (vi) Movement of ARMV and ART should never be clubbed together. ARMV should be started first and moved separately for faster movement,
- (vii) ARM Vs and ARTs should be dispatched from the base station, within the target time stipulated. Departure of ARM Vs and ARTs should not be delayed on any account including arrival of doctors or officers. Anybody who is left behind can proceed later on either by GM special or by next special train or even by road,
- (viii) ARM Vs must be run out within the target time, even without full complement of doctors, if necessary. This will ensure that other doctors who are available at accident site can utilize facilities of ARMV after its arrival at site,
- (ix) ARM Vs and ARTs should be moved on top priority taking precedence over all other trains. They should not be stopped anywhere en-route for picking up any one.
- (x) Running lines at 7 stations on either side of the accident effected block section should be kept clear of all trains. In case there are any stabled loads, the same should be lifted,
- (xi) Freight trains on run towards accident site should be reversed and returned,
- (xii) Fresh stabling, if any, should be done beyond 7 stations on either side,
- (xiii) Even for stabling beyond 7 stations, both Up and Dn loop lines should not be blocked at the same station,
- (xiv) For stabling beyond 7 stations, Up loop and Dn loop should be blocked, at alternate stations.

2. Diversion. Regulation. Short termination. Cancellation and Rescheduling of Mail/Express/Passenger trains ;

- (i) The moment information is received about the accident; all Mail/Express trains on run towards the accident-involved section should be stopped. They should not be advanced beyond the last In. from where they can be diverted,
- (ii) They should be regulated at convenient stations before a decision is taken regarding then- further movement. This decision should normally be taken within the next one hour.
- (iii) Trains should preferably be regulated at stations where food can be arranged,
- (iv) However, too many trains should not be simultaneously brought to a Jn. station for regulation, since it may create law and order problems,
- (v) It is better to keep them moving slowly so that passengers do not agitate. In such cases, a caution order may be served to the driver to proceed at 30 kmph. (vi) Passenger trains can be run out to the next convenient location and thereafter terminated so that their rakes are available for use.
- (vii) Hqtr. Emergency Cell shall decide on the following in consultation with adjoining Railways and Coaching Directorate of Railway Board:
 - Diversion,
 - Regulation,
 - Short termination,
 - Cancellation,
 - Rescheduling,
- (viii) The above decision regarding diversion etc. should be taken in about an hours tune after ARMVs, ARTs, GM special have been run out and there is a slight full in the information flow.

- (ix) As far as possible, trains which are already on run should be diverted. They should not be short terminated, since this will create problem of dispersal of passengers,
- (x) Trains should be diverted from the last possible In. station onwards so that maximum number of passengers can detrain at their proper destination stations. (For example, in case of an accident on the CNB - TDL section, Up trains towards New Delhi should be diverted from CNB and not from MGS itself),
- (xi) Sr. DEE/RSO would be in-charge of co-ordination with operating department regarding requirement and availability of crews etc.
- (xii) Sr. DEE/RSO will take into consideration changing traffic requirement because of diversions etc. and accordingly plan crew deployment,
- (xiii) Adjoining divisions should be informed about these diverted trains so that spare crews can be sent to interchange points,
- (xiv) For diverted trains, drivers and guards having necessary road learning should be arranged,
- (xv) Drivers nominated for working these diverted trains should be empanelled for working Mail/Expresses as per Railway Board's instructions,
- (xvi) Crews should also be planned for diesel engines sent to the accident site working ARMVs, ARTs, other special trains and likely to be held up there for next 2-3 days,
- (xvii) A total of about 10 diesel powers would be deployed in the accident affected section on different special trains at any point of time,
- (xviii) 3 sets of diesel crews should be planned for each diesel loco deployed at the accident site.
- (xix) If necessary, diesel crews should be arranged from adjoining divisions also, (xx) Sr.DEE/RSO, DEE/ AEE (RSO) will perform this function.

3. **Running of Special trains :**

Following special trains will be required to be run in the given order of priority:

- (i) ARMV.
- (ii) ARM V from the other end.
- (iii) 2 additional ARMVs from adjoining divisions, one from each end.
- (iv) ART.
- (v) ART from the other end.
- (vi) 2 additional BD Specials one from each end.
- (vii) 1st special train carrying GM and other officers from Hqtr. and some left over officers from division (in case it passes through the divisional Hqtr.).
- (viii) Unaffected front portion of the accident involved train in case the same can be moved,
- (ix) Unaffected rear portion of the accident involved train in case the same can be moved,
- (x) In case the front and rear portions cannot be moved, then they should be left as they are.
- (xi) 2 empty coaching rakes, one from either end for clearing unaffected passengers of the accident involved train,
- (xii) 2nd and 3rd special trains for accident site, one from each end, carrying logistic backup support, material and additional manpower from junction stations. These should normally be run out 2-3 hrs. after arrival of ARMV carrying DRM and other divisional officers at the

- accident site,
- (xiii) Before these 2nd and 3rd special trains are run from each end, railway staff at all stations en-route should be informed regarding running of these trains so that supervisory staff of all departments, from Jn. stations can go to the accident site by these trains,
 - (xiv) 2 light engines should be stationed, one at each station on either side of the accident involved block section,
 - (xv) 2 Engineering specials, one from each end, carrying engineering material and gang men from the section.
 - (xvi) Running of 2 passenger specials for carrying relatives to the site of accident. These trains will be started from the originating and destination stations of the accident involved train and will be given same stoppages as the accident involved train for picking up relatives en route. This is to be co-ordinated by Hqtr. Emergency Cell in consultation with Railway Board,
 - (xvii) Arrangement for the visit of MR/MOSR, CRB and other Board Members to the accident site should be made in coordination with the Safety Directorate and Secretary, Railway Board,
 - (xviii) 2 empty coaching rakes, one from either end for being stabled at convenient locations where watering and charging facilities are available. These stabled rakes will be used for housing the staff working at accident site.

4. Sequence of movement of ARMVs and ARTs into the accident affected block section ;

- (i) The sequence of sending and taking out various trains into and out of the accident affected block section should be planned carefully,
- (ii) Except for 140T cranes and Engineering specials, all other trains should be sent into the block section with engine leading so that they can reach faster,
- (iii) If the unaffected front and rear portions of the accident involved train can be pulled out, then these should be withdrawn before sending in ARM Vs into the block section,
- (iv) After the unaffected front and rear portions have been pulled out, both portions should be augmented by ,being patched up with extra coaches at the . first Jn. station enroute.
- (v) In case the front and rear portions cannot be pulled out then they should be left as they are.
- (vi) After the 1st pair of ARMVs reach adjacent stations from either side, they should be sent into the block section, one from each end.
- (vii) BD specials without cranes that have arrived should be pushed into the block section after the ARMV so that additional cutters, spreaders, hydraulic jacks etc. can be made use of.
- (viii) After all equipments from BD specials have been unloaded at accident site and staff have detrained, both BD specials should be withdrawn. These should then be kept 4 stations beyond,
- (ix) The 2nd pair of ARM Vs that have been requisitioned should also be moved on top priority. After BD specials have been withdrawn, these ARMVs should be sent into the block, section while the first ones are still there,
- (x) In case 2nd pah of ARMVs arrive before BD special, then item no (ix) should be carried out before item no. (vii) and (viii).
- (xi) Both ARTs with 140T cranes should be regulated at least 1 station before so as not to clutter up the adjacent station,

- (xii) Empty coaching rakes that have been sent for clearing uninjured passengers should be sent into the block section thereafter, while both ARMVs are still there,
- (xiii) After transshipment of passengers, both empty coaching rakes should be pulled out and run out as passenger special to the original destination of the accident involved train,
- (xiv) After the work of ARMVs is over, all of them should be withdrawn and returned back,
- (xv) The front and rear portion of the accident-involved train should now be withdrawn by sending diesel light engines into the block section,
- (xvi) Last of all both ARTs with 140T crane should be marshalled as per site requirement and sent into the block section with crane leading, one from each end. (xvii) Tower wagons should be sent in from each end following the ART.

5. Setting up Emergency Cells in Divisions :

- (i) Divisional Emergency Cell shall be opened immediately after receipt of information of the accident at Divisional Control Office,
- (ii) This unit will exercise control, co-ordinate and arrange supplementary assistance to the accident site,
- (iii) It shall function in a separate cubicle at Divisional Control Office provided with centralized communication networks, hot line to the site and Hqtr.
- (iv) Sr. DOM will be over all in charge of the Divisional Emergency Cell and will function as the Divisional Emergency Officer for the purpose of managing relief and restoration operations from divisional level,
- (v) In case Sr. DOM is not available, DOM (Movement) will be the Divisional Emergency Officer, (vi) In case both officers are not available, any other officer nominated by DRM will take over charge.
- (vii) Requirements of all departments for movement of men and materials to the accident site shall be conveyed to the Divisional Emergency Officer, who shall arrange their movement,
- (viii) Timings of 2nd and 3rd special trains to be moved from each end to the accident site, carrying backup logistic support will be conveyed to all concerned beforehand,
- (ix) Divisional Emergency Cell will maintain:
 - Telephone and FAX numbers of the accident site.
 - These should be maintained functionary wise for each functionary available in the UCC.
 - Similarly telephone and FAX numbers of functionaries available in CAC should also be available with the Divisional Emergency Cell.
 - Telephone and FAX numbers of Helpline Enquiry Booths that would have been set up at various stations on the division.
 - E-Mail addresses of UCC, CAC, Helpline Enquiry Booths and Hqtr. Emergency Cell. E-Mail addresses of some of them are given in Annexure-19.
 - Names and phone numbers of hospitals where injured have been admitted/shifted along with number of patients.
- (x) Divisional Emergency Cell will collect updated information regarding all aspects of the

accident and pass on the same either telephonically or by E-Mail to:

- All Helpline Enquiry Booths within the division.
- Hqtr. Emergency Cell,
- (xi) Divisional Emergency Officer on duty shall chronologically record all information and instructions received or given in a logbook.
- (xii) For Allahabad division, similar Emergency Cell will also be opened at Tundla Control Office. DTM/TDL will function as Emergency Officer and discharge all duties listed above,
- (xiii) In addition to the Division where accident has taken place similar Emergency Cells will be opened in other Divisional Control Offices of NCR that are involved in restoration and relief operations. Chief Emergency Officer will decide divisions where Emergency Cells are to be opened,
- (xiv) Helpline Enquiry Booths outside the accident affected division, but within NCR jurisdiction should keep in touch with Divisional Emergency Cell of their respective division,
- (xv) If necessary, similar emergency cells will be opened at other major terminals as decided by Chief Emergency Officer,
- (xvi) After relief, rescue and restoration work is completed, winding up of Divisional Emergency Cells shall be decided by DRM.

6. Setting up Emergency Cell in Hqtr. :

- (i) Hqtr. Emergency Cell shall be opened immediately after receipt of information, of the accident at Hqtr. Office,
- (ii) This unit will exercise control, co-ordinate and arrange supplementary assistance to the accident site,
- (iii) It shall function from a separate room in NCR Hqtr. office provided with centralized communication network, hot line to UCC and Divisional Emergency Cell.
- (iv) Disaster Management Control Room in NCR/HQ office should work as HQ Emergency Cell for the duration of disaster,
- (v) CPTM will be overall incharge of the HQ emergency cell and will function as Chief Emergency Officer for the purpose of managing relief and restoration operations from HQ level,
- (vi) In case CPTM is not available, CTPM and CFTM will be the Chief Emergency Officer in that order,
- (vii) In case both officers are not available, any other officer nominated by COM will take over charge,
- (viii) Requirements of all departments for movement of men and materials to the accident site from adjoining zones and divisions shall be conveyed to the Chief Emergency Officer, who shall arrange their movement,
- (ix) Hqtr. Emergency Cell will maintain:
 - Telephone and FAX numbers of the accident site. These should be maintained functionary wise for each functionary available in the UCC.
 - Similarly telephone and FAX numbers of functionaries available in CAC should also be available with the divisional emergency cell.

- Telephone and FAX numbers of Helpline Enquiry Booths that would have' been set up at various stations on adjoining zones.
 - E-Mail addresses of UCC, CAC, Helpline Enquiry Booths and Divisional Emergency Cells set up on other Divisions of NCR. E-Mail addresses of some of them are given in Annexure-19.
 - E-Mail addresses of Emergency Cells opened on train originating/ terminating Divisions & Zones and Safety Directorate Emergency Cell in Railway Board. Names and phone numbers of hospitals where injured have been admitted/shifted along with number of patients.
- (x) Hqtr. Emergency Cell will collect updated information regarding all aspects of the accident and pass on the same either telephonically or by E-Mail to: Emergency Cells opened on other divisions of NCR, Emergency Cells opened on originating and terminating Zonal railways. Safety Directorate's Emergency Cell in Railway Board,
- (xi) Hqtr. Emergency Cell will monitor movement of ARMVs/ARTs etc. coming from adjoining Zones/divisions.
- (xii) Assistance from Defence, Para military establishments, State Govts, should be coordinated by Hqtr. Emergency Cell as and when required. Officials to be contacted and their telephone numbers are indicated in Annexure 4 to 23.
- (xiii) Chief Emergency Officer on duty shall chronologically record all information and instructions received or given in a logbook,
- (xiv) SDGM shall monitor various important media channels to keep track of media reporting. Suitable corrections/clarifications may also be issued, if required.
- (xv) After relief, rescue and restoration work is completed, winding up of all Emergency Cells on NCR shall be decided by COM.

7. Manning of Divisional/Hqtr. Emergency Cell in shift duty :

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

8. Liaison with Railway Board :

Hqtr. Emergency Cell at Disaster Management Room will maintain constant liaison with Safety Directorate's Emergency Cell in Railway Board regarding following activities:

- (i) Movement of additional ARM Vs and ARTs from adjoining zones.
- (ii) Movement of additional diesel powers from adjoining zones.
- (iii) Diversion, Regulation, Short termination, Cancellation and Rescheduling of Mail/Express trains,
- (iv) Arrangement of men and material as required from adjoining zones and their expeditious movement.
- (v) Opening of Helpline Enquiry Booths on other Zonal Railways as follows:
 - Originating and destination stations of the accident involved train.
 - All junction stations falling on the route of the train.
 - Divisional Hqtr. of originating and terminating divisions.
 - Zonal Hqtr. of originating and terminating Zonal Railways.
 - Any other station as may be decided,
- (vi) Movement program for visit of MR/MOSR, CRB and other Board Members to the accident site,
- (vii) Assistance required from Defence, Para Military organizations, State Govts. should be conveyed to Railway Board who shall coordinate the same.
- (viii) 3 hourly progress report on the rescue and relief work shall be communicated to Safety Directorate's Emergency Cell hi Railway Board.

9. Duties of Additional Divisional Railway Manager :

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

RESPONSE - ASSISTANCE FROM NATIONAL DISASTER RESPONSE FORCE (NDRF)

(Chapter -10)

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

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

Present Organisation

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

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

Location of NDRF Battalions (Bn)

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

S.No.	NDRFBn	State	CPF
1	NDRF Bn, Greater Noida	Uttar Pradesh	ITBP
2	NDRFBn, Bhatinda	Punjab	ITBP
3	NDRF Bn, Kolkata	West Bengal	BSF
4	NDRF Bn, Guwahati	Assam	BSF
5	NDRF Bn, Mundali	Orissa	CISF
6	NDRF Bn, Arakkonam	Tamilnadu	CISF
7	NDRF Bn, Pune	Maharashtra	CRPF
8	NDRF Bn, Gandhinagar	Gujarat	CRPF
9	NDRF Bn, Patna	Bihar	SSB
10	NDRF Bn, Guntur	Andhra Pradesh	CFPF
11	NDRFBn , Varanasi	Uttar Pradesh	SSB
12	NDRFBn ,It anagar	ArunachalP radesh	SSB

Intensive training is provided to this force for help in any kind of disaster. This team is visited to different places to create awareness amongst the public regarding human loss in disaster and preventive measures from it through community training centre, so that people of the sensitive area and its surroundings may get aware from the loss during disaster. Nation feels proud on this force for taking prompt action during disaster.

To see the geographical condition of North Central Railway, NDRF Bn. located at Varanasi has been nominated for this railway. To co-ordinate with NDRF, Safety Department of NCR should arrange at least one meeting with NDRF official in one financial year.

In co-ordination with Safety Directorate, Railway Board, Safety Department / NCR should organize the operation & mobilization of NDRF during disaster.

DISASTER RESPONSE - ASSISTANCE FROM ADJOINING DIVISIONS/ZONES

(Chapter -11)

1. Necessity of assistance from adjoining Divisions/Zones :

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

2. Assessment of assistance from adjoining Division/Zones :

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

3. Scale of assistance from adjoining Division/Zones :

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

Threshold level	<u>150 > In juries > 100</u>	<u>250 > In juries > 200</u>
No. of teams	1 team	3 teams
ARMVs	2	2 + 2
HOT crane	2	2 + 2 BDs

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

–	Officer in charge	Senior Scale
–	Doctors	5
–	Para - medical staff	10
–	Commercial officers	2
–	Commercial supervisors	10
–	Commercial staff	20
–	Personnel supervisors	5
–	Group D staff	20
–	RPF	1 platoon

- (iv) In case of Allahabad Division, assistance should be sought from following divisions in the given order of priority:

	<u>Name of division</u>	<u>No. of teams</u>
–	Jhansi (NCR)	2
–	Lucknow (NR)	1
–	Mughal Sarai (ECR)	1
–	Varanasi (NER)	1
–	Moradabad (NR)	1
–	Delhi (NR)	1
	Total	7

- (v) In case of Jhansi Division, assistance should be sought from following divisions in the given order of priority:

	<u>Name of division</u>	<u>No. of teams</u>
–	Allahabad (NCR)	3
–	Bhopal (WCR)	1
–	Kota (WCR)	1
–	Jabalpur (WCR)	1
–	Delhi (NR)	1
	Total	7

- (vi) In case of Agra Division, assistance should be sought from following divisions in the given order of priority:

	<u>Name of division</u>	<u>No. of teams</u>
–	Jhansi (NCR)	3
–	Allahabad (NCR)	2
–	Delhi (NR)	2
–	Kota (WCR)	1
–	Jaipur (NWR)	1
	Total	9

4. Assistance from Defence & Para Military forces :

- (i) Assistance should be sought from nearest army & para - military establishments.
- (ii) Railway staff no matter how dedicated and loyal, are not experts in extricating, dead bodies, handling injured passengers, their evacuation etc.

- (iii) Army has the necessary expertise and are trained and equipped to handle such a war like situation,
- (iv) Therefore, Divisional/Zonal Hqtr. should get in touch with the nearest army command and request for necessary assistance,
- (v) Select telephone numbers of Army and Para - military establishments are given in Annexure - 23.
- (vi) Additional telephone numbers of Army are given in Divisional DM Plans.

5. **Departmental assistance from adjoining divisions/zones ;**

(a) **S &T Department ;**

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

(b) **Electrical Department ;**

- (i) Generators from ARTs of adjoining divisions.
- (ii) Lighting equipments from ARTs of adjoining divisions.
- (iii) Portals and ORE masts.

(c) **Civil Engineering ;**

- (i) 500 additional workmen are required who are to be moved from adjoining divisions/zones,
- (ii) Each such division sending assistance should move 250 men along with 5 artisans and 5 SEs (P.Way).
- (iii) One DEN and one ADEN each should also move to the site of accident from each such division.

SITE MANAGEMENT PLAN - I

(Chapter - 12)

There are 2 aspects of Disaster Management work at an accident site. Firstly, rescue, relief and restoration operation, which is carried out by one set of functionaries. Second aspect pertains to rehabilitation of accident-involved passengers, taking care of dead bodies, dealing with their relatives etc. for which a different set of functionaries are required. For managing these 2 distinct aspects of DM work that are required to be discharged by railways, two separate establishments should be set up at an accident site. The outline schematic plan of accident site is given at Annexure - 1.

1. **Unified Command Center OJCC :**

- (i) Unified Command Centre (UCC) should be set up at the accident site.
- (ii) This will be some kind of a control office to be located near the centre of the accident site,
- (iii) This is basically meant for catering to operational needs of railway in rescue, relief and restoration work.
- (iv) Detail schematic plan of UCC is given at Annexure - 2. (v) UCC is to be manned by staff of relevant departments such as:
 - Medical,
 - Commercial,
 - Operating,
 - Safety,
 - Security,
 - Public Relations,
 - Mechanical,
 - Electrical,
 - S&T,
 - Civil,
- (vi) UCC will be provided with all facilities similar to a control office.
- (vii) Adequate lighting with generator backup should be provided in the UCC. Adequate number of telephonic links to Divisional Emergency Cell and Hqtr. Emergency Cell should be provided. Preferably each department in the UCC should be given an independent telephone.
- (viii) Satellite telephone should be installed in the UCC.
- (ix) UCC should be provided with FAX, Photocopier, PCs and loudspeakers. PC/Laptop should be connected to Internet for E-Mailing of detail update to all concerned, including Divisional Emergency Cell, Hqtr. Emergency Cell and Helpline Enquiry Booths.
- (x) A big banner displaying 'UNIFIED COMMAND CENTER' should be put up at a prominent place at the entry to the shamiana.
- (xi) Similarly there should be sufficient number of signages indicating the way to UCC on approach roads etc.
- (xii) UCC at the site will be manned by Sr. Supervisors on round the clock basis in 12 hrs. shift duty.
- (xiii) Officers will not be permanently stationed in UCC. They will move about the entire accident site supervising and monitoring working of their department at different activity centers. However, they will keep coming to the UCC off and on and will kept in touch with their departmental functionaries in UCC.

- (xiv) Various functionaries in the UCC will monitor and co-ordinate the working of their departments, and assistance required by them, if any.
- (xv) Each functionary at the UCC will maintain a log book. Flow of information both incoming and outgoing would be recorded along with the time and names of officers/staff who were given the message.
- (xvi) UCC will basically supervise the working of 2 LCCs and co-ordinate with Divisional and Hqtr. Emergency Cells.
- (xvii) Functionaries of different departments hi LCCs should provide updated information regarding progress of work to their counterparts in UCC.
- (xviii) This updated information should be provided once every 3 hrs. as per the following timings:
 - 1/- hrs.
 - 4/- hrs.
 - 7/- hrs.
 - 10/- hrs.
 - 13/- hrs.
 - 16/- hrs.
 - 19/- hrs.
 - 22/- hrs.

2. **Local Command Centers (LCO) :**

- (i) Depending on the spread of the accident site, Local Command Centres (LCC) on the same pattern as the UCC should be set up.
- (ii) If the site is spread out over 300 - 400 mts. 2 LCCs should be set up.
- (iii) Detail schematic plan of LCCs would be similar to that of UCCs as given at Annexure - 2.
- (iv) Representatives of same departments as in UCC should be present in LCCs also. However, they should be either one or at most 2 men per department,
- (v) LCCs will serve as co - ordination centres for various teams that are working spread out over different geographical locations.
- (vi) Each LCC will oversee the working of DM teams at one end of the accident site, (vii) Jurisdiction of each LCC will extend to all men and materials belonging to 2 ARMVs, 1 BD special and 1 ART at that end of the accident site.
- (viii) One SAG officer of Mechanical department will be overall in charge of each LCC.
- (ix) LCCs should be provided with loudspeakers for making announcements,
- (x) LCCs should be provided with direct telephonic links to UCC.
- (xi) However, LCCs should not be provided with telephonic links to either Divisional Emergency Cell or Hqtr. Emergency Cell. This will ensure that there is minimum telephonic disturbance from outside to teams which are actually working at the accident site. It will also ensure that outflow of information from accident site goes out from UCC only,
- (xii) Members of different teams of each department working at the accident site in rescue, relief and restoration work should provide updated information regarding progress of work to then- respective functionaries at the LCC.
- (xiii) This updated information should be provided once every 3 hrs. as detailed at 1 (xviii) above.

3. **Need for setting up of Central Assistance Center ;**

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

4. Formalities required to be completed by relatives of passengers :

- (a) Sequence of formalities that are required to be completed by relatives of injured passengers include:
 - (i) Locating the name of the passenger on reservation charts, in case passenger was travelling in reserved accommodation,
 - (ii) Going through the list of injured and dead passengers to find out whether the name appears,
 - (iii) In case the name is not available in the list, then taking a round of different hospitals to find out whether then: relative has been admitted in one of them in an unconscious state,
 - (iv) Hospitals are generally at separate locations, sometimes even in different towns; and commuting becomes a problem,
 - (v) In case the passenger can be located in one of the hospitals, they have to find out the severity of injuries, likely period of hospitalization etc.
 - (vi) Collect the ex - gratia paid by railways,
 - (vii) Try and locate missing luggage of the injured passenger. For this they have to take a round of the building where all unclaimed luggage have been kept,
 - (viii) Next they have to arrange for a place for themselves to stay,
 - (ix) Arrange for medicines/diet etc. and payment of hospital bills, if required. Thereafter, they have to keep in touch with the hospital and get their relative released.
- (b) Additional formalities that are required to be completed by next of kin of dead passengers include:
 - (i) In case the passenger could not be located in any of the hospitals, then they have to go to the building where unidentified dead bodies have been kept.
 - (ii) Take a round of various rooms where bodies have been kept, examine each body and try and locate their near and dear one.
 - (iii) Identify the dead body, if the same has been extracted by them.
 - (iv) Otherwise wait for all bodies to be extracted and try and identify their relative,

- (v) Incase they fail to identify the same then they have to go through photographs of unidentified bodies taken at site,
- (vi) After the body is finally identified, they have to produce proof of relationship for railways to entertain their claim.
- (vii) Obtain medical death certificate from the railway doctor,
- (viii) Obtain post mortem report, from the Govt. doctor who has performed post mortem on the body.
- (ix) Obtain official death certificate from the local municipality,
- (x) Accept of ex - gratia payment from railways,
- (xi) Collect forms for lodging claim for compensation in RCTs.
- (xii) Take over custody of dead body from the local police,
- (xiii) Perform last rites at the same place or take back the body to then- native place, depending on circumstances,
- (xiv) Make arrangements for their return journey back to their native place.

5. Problems encountered by relatives :

- (i) Each of these formalities are under the jurisdiction of a different agency, either railway, or police, or civil administration, or local administration,
- (ii) In such a situation the level of co - ordination between these various agencies leaves much to be desired,
- (iii) Sometimes it even takes up to 48 hours before all these documentary formalities can be completed,
- (iv) In most cases, relatives have to run from pillar to post for completing all these formalities and the bitter experience leaves them permanently antagonized towards railways,
- (v) For this purpose a single window clearance system should be available for relatives and next of kin.

6. Combined Assistance Center (CAP :

- (i) The UCC should have a Combined Assistance Centre (CAC) located towards the rear side, away from the track, for rendering help to passengers and their relatives. Outline schematic plan of UCC/CAC is given at Annexure - 1.
- (ii) This is basically meant for catering to requirements of passengers and their relatives/next of kin, and for providing a single window clearance for all types of formalities,
- (iii) CAC should be separate from the UCC so that it does not interfere with normal rescue and relief work.
- (iv) Detail schematic plan of CAC is given at Annexure - 3.
- (v) CAC will be manned by staff of relevant departments such as:
 - Operating,
 - Medical,
 - Commercial,
 - Security,
 - Personnel,
- (vi) There should be only one such CAC, and all railway resources should be pooled into it.

- (vii) LCCs should not have any small CAC located in the rear. It is likely to create logistic problems,
- (viii) A big banner displaying 'COMBINED ASSISTANCE CENTER' should be put up at a prominent place at the entry to the shamiana.
- (ix) Similarly there should be sufficient number of signages indicating the way to CAC on approach roads etc.
- (x) Railway staff fluent in the language of relatives should be posted for doing work of interpreters,
- (xi) Post mortem formalities should be waived off so that number of formalities gets reduced by one.
- (xii) Different counters should be provided in sequence for each of these formalities, so that the entire exercise can be completed in about an hour,
- (xiii) Functionary concerned from the local Municipality who issues Official Death Certificates should be made to come and sit in the CAC so that these certificates can be issued immediately without any delay,
- (xiv) CAC should have different counters for various purposes in following sequence:
 - (a) Reservation chart, for locating the name.
 - (b) List of dead and injured along with name of hospital. The name of passenger involved should be checked up from the list of dead or injured, if available, and their current status informed.
 - (c) Counter for providing commercial supervisor or WLI as escort along with a vehicle, for accompanying the relative and going to hospitals or mortuary.
 - (d) Railway doctor for issue of Medical Death Certificate.
 - (e) Govt. doctor for issue of Post Mortem Certificate, in case the same is necessary.
 - (f) Municipality official for issue of Official Death Certificate.
 - (g) Local police for issue of authority for handing over of dead body.
 - (h) Claims counter - Payment of ex-gratia and issue of Claims Compensation form,
 - (i) Counter for helping performance of last rites in case relatives decide to cremate the body there itself.
 - (j) Pass cOI Inter for issue of return journey pass,

(k) Return journey facilitation counter for making arrangements for return journey.

7. First Aid Posts :

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

8. Setting up of UCC, LCC and CAC :

- (i) One SSE/Works shall be exclusively responsible for setting up of these facilities. He shall undertake the following:
 - Move along with sufficient staff for setting up of these facilities. Immediately start setting up of the tent age accommodation after taking out tents and shamianas provided in ARTs.
 - In addition, he should also requisition agencies which provide tentage accommodation on contract. Details of such agencies have been given in Divisional DM Plans.
- (ii) Bridge Line staff will assist in setting up tentage and above mentioned facilities. Dy. CE/ Bridge will also move to the site and in case, bridge is not involved, he will take full charge of tentage arrangements.
- (iii) Bridge Unit will take with them sufficient Manila ropes, wire ropes, survey instruments, binoculars, helmets, life jackets, ladders and other equipment. Nylon ropes should be sufficient in length to ensure barricading at sites and camping areas,
- (iv) Sufficient facilities for erecting temporary stage/scaffolding etc. should also be organized, if required at site,
- (v) Few temporary toilets should be provided at one location in addition to number of urinals at 3 or 4 places,
- (vi) Water tankers will be ordered for supplying water at site and arrangements shall also be made for drinking water,
- (vii) Temporary kitchen in tents/shamianas is to be set up so that catering unit or IRCTC can provide cooked food to staff working at accident site,
- (viii) About 100 folding chairs should also be arranged,
- (ix) Bridge Line staff will have list of divers who in case of emergency can be hired for rescue or restoration operations wherever site is surrounded by deep water,
- (x) Signages for both UCC and CAC should be provided at prominent locations.

9. Collection and Dissemination of Information - Channel of Communication :

The following would be the responsibility and channel both for collection as also dissemination of information. Before each shift goes off duty, details of work done should be updated in the LCC.

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

(a) Number of dead and injured - Medical department :

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

(b) Identification of dead bodies - Commercial department :

- (i) Ex- gratia paid to injured.
- (ii) Number of dead bodies identified.

- (iii) Ex - gratia paid to dead.
- (iv) No. of bodies handed over to relatives,

(c) **Number of coaches dealt with - Mechanical department**

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

SITE MANAGEMENT PLAN - II

(Chapter -13)

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

(A) Members of the Disaster management Team :

1. Disaster Management Team normally comprises members of following departments ;

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

2. Officer-in-Charge of Site (PC 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 1st Special train carrying GM and other Hqtr. officers, GM shall be OC Site. In the absence GM, the senior most officer shall be OC Site. He will be responsible for forming Core Groups as required and direct them to carryout efficient rescue, relief and restoration operations.

3. Rescue, Relief and Restoration Operation ;

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

- (i) Crowd Control and Law and Order.
- (ii) Rescue operation.
- (iii) Relief operation.
- (iv) Video coverage of accident site.
- (v) Installation of Communication Network.
- (vi) Clearance from State Police for restoration.
- (vii) Preservation of Clues and Evidence.
- (viii) Media Management at site.
- (ix) Salvage operation.
- (x) Restoration operation.

4. 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 as detailed in (D4) (xv) below.

(B) General :

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

1. OC Site :

- (i) Ensure setting up of UCC, CAC and LCCs 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 NCR, Adjoining zones, Non - railway agencies.
- (v) Channelise local resources to supplement available railway resources,
- (vi) Ensure that duties of various functionaries of different departments as laid down in NCR's Zonal DM Plan are carried out.
- (vii) Ensure co-ordination among all departments for efficient rescue, relief and restoration operation.
- (viii) Ensure information to SP Police and District Magistrate,
- (ix) In case of sabotage, direct RPF to obtain quick clearance from State Police,
- (x) In case of serious explosions or fire, clearance from Controller of Explosives is to be obtained,
- (xi) Give prima facie cause of the accident along with forecast of expected date and time of restoration.
- (xii) Ensure timely information on the progress of rescue, relief, and restoration work every 3 hrs. with following details:
 - Number of coaches searched.
 - Number of injured passengers recovered.
 - 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 and supervisors at accident site: Re - railment.
 - Track fitness.
 - ORE fitness.
 - Points and inter - locking.
 - Clearance of section.
 - Movement of first train.

2. Duties of Divisional Railway Manager :

- (i) Ensure that functionaries of different branches at the accident site carry out duties assigned to them as per Zonal and Divisional DM Plan, (ii) Co-ordinate with Divisional Emergency Cell regarding assistance required. (iii) Co-ordinate with Civil Authorities especially with regard to:
 - 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.

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

- (i) At the accident site, departmental officers available from both Hqtr. and division shall be formed into two teams for round the clock working in 2 shifts, preferably 8 hrs. to 20 hrs. and from 20 hrs. to 8 hrs.
- (ii) PHODs/CHODs shall be available on duty during the daytime.
- (iii) PHODs/CHODs shall take on the spot decision regarding composition of the team for night shift for their respective department. This composition should not normally be changed during the 3-4 day stay at the accident site.
- (iv) Branch Officers shall be available on duty during the daytime.
- (v) Branch Officers shall take on the spot decision regarding composition of the team for night shift for their respective department. This composition should not normally be changed during the 3-4 day stay at the accident site.
- (vi) Similarly, supervisors available from both Hqtr. and divisions shall also be put in two teams.

(C) Duties of Operating Department :

Immediately after getting the information,

- (i) All sectional TIs and Supervisory SSs should be directed to reach the accident site by first available means,
- (ii) Similarly additional RG/LR staff from the section should be sent to 3 stations on either side so that SMs can be free for going to accident site,
- (iii) Since considerable amount of shunting is required to be performed at adjoining stations, 2 traffic supervisors in 2 shifts should be posted at adjoining stations on each side.
- (iv) Ensure that special trains are sent into the accident affected block section according to the sequence,

- (v) Ensure proper marshalling of crane while proceeding to the accident spot in the block section,
- (vi) Ensure that Engineering vans of the ART are placed nearest to the accident site. For this purpose, Engineering van/wagon should be placed closest to site of accident by sending it in pushing condition,
- (vii) Ensure prompt clearance of stranded passengers at the site in coordination with the Divisional Emergency Cell,
- (viii) Regarding running of special trains, keep in touch with Divisional Emergency Cell and give requirement from site.

(D) Duties of Safety Department :

- (i) Preserve all clues and evidences regarding probable cause of the accident and ensure that these do not get disturbed till police clearance is received.
- (ii) Ensure that video/still photographs by digital cameras are taken as required,
- (iii) Ensure that joint measurements, observations are recorded in the prescribed Performa before restoration work begins,
- (iv) Ensure that unaffected rolling stock is moved away from the site and thereafter stabled at convenient location for further examination during accident inquiry.
- (v) Ensure that evidence of train staff; station staff and public are recorded on the spot,
- (vi) Addresses of passengers willing to give statements later should also be obtained,
- (vii) Co-ordination with NDRF and assist them for reaching at site.

(E) Duties Of Medical Department :

1. Main functions ;

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

- (a) Taking an initial round of hospitals and assessment of situation.
- (b) Taking out injured passengers from accident-involved coaches.
- (c) Attending to injured passengers and giving them First Aid.
- (d) Preparing list of injured passengers.
- (e) Classification of their injuries.
- (f) Transporting them to hospitals and getting them admitted.
- (g) Post admittance hospital care of the injured,
- (h) Dealing with dead bodies.

- (i) Preservation of dead bodies.

2. General ;

- (i) Ensure collecting blood and urine samples of train crew in case the same is necessary.
- (ii) Organize as many road ambulances as possible at the accident site,
- (iii) Data Bank of Divisional DM Plans have names, telephone numbers and other details of hospitals near the accident site. They should be contacted on phone for sending road ambulances along with team of doctors.

- (iv) Set up Medical Counter in UCC and CAC for passenger assistance, (v) Set up First Aid Posts in LCCs.

3. Site management :

- (i) Leader of Team 'A' (Normally CMS/MS In-charge of the Division) would take control of the site, co-ordinate relief measures and distribute duties amongst doctors available as detailed below:
- (ii) Different teams and groups will be formed for discharging various duties of the Medical department as detailed in Section (El) above. Each team should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement,
- (iii) One group of doctors will take a round of various hospitals where injured passengers have already been admitted. (Para 4 below)
- (iv) One group consisting of 4 - 5 teams of doctors and para-medics will take out injured passengers and dead bodies from accident involved coaches. (Para 5 below)
- (v) One team will attend to injured passengers and give them First Aid and other medical treatment. (Para 6 below)
- (vi) One team will prepare list of injured passengers, note down details of their injuries and classify them. (Para 7 & 8 below)
- (vii) One team would be in-charge of transporting injured passengers to hospitals and getting them admitted. (Para 9 below)
- (viii) One team would be in-charge of post admittance hospital care of the injured. (Para 10 below)
- (ix) One team will deal with dead bodies after these have been extracted from coaches. They will prepare a list and arrange for their preservation. (Paras 11 & 12 below),
- (x) In case sufficient doctors are available then more groups should be formed for rescue operations. (Para 5 below)

4. Taking an- initial round of hospitals :

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

- (viii) One copy should also be sent to CAC for being fed into the PC provided in the CAC.
- (ix) The initial list prepared should be updated at regular intervals, as and when any change occurs.

5. Taking out injured passengers :

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

6. Attending to injured passengers :

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

7. Preparing list of passengers :

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

8. Classification of Injuries :

- (i) Injuries are classified as under:

- (a) 'Grievous' injuries as defined below.
- (b) 'Simple', but excluding 'trivial' injuries such as abrasions or bruises.
- (ii) Following are considered to be grievous injuries (as per section 320 of the Indian Penal Code):
 - (a) Emasculation
 - (b) Permanent privation of sight of either eye.
 - (c) Permanent privation of hearing of either ear.
 - (d) Privation of any member or joint.
 - (e) Destruction or permanent impairment of powers of any member or joint.
 - (f) Permanent disfigurement of head or face.
 - (g) Fracture or dislocation of a bone or tooth.
 - (h) Any hurt which endangers life, or which cause the sufferer to be, during the space of twenty days, in severe bodily pain or unable to follow his ordinary pursuits.
- (iii) Injuries other- than those defined above are considered to be simple injuries,
- (iv) Apart from injuries defined above, there may be cases where a passenger or trespasser, receives only petty abrasions or bruises. These are of trivial nature and technically speaking should not be taken as injuries,
- (v) As a thumb rule, any injury requiring hospitalization of more than 48 hrs. is grievous, hospitalization of less than 48 hrs. is simple, and any injury not requiring hospitalization at all is trivial.
- (vi) Classify injured passengers into separate categories as grievous or simple,
- (vii) Inform Commercial department for arranging ex-gratia payment.

9. Transporting injured passengers to hospitals :

- (i) One team will be asked to arrange transport of injured passengers to nearby hospitals,
- (ii) Ensure expeditious transportation of injured either to AMRVs or to nearby hospitals,
- (iii) Critically injured passengers should be transported by means of road ambulances and other by means of ordinary road vehicles,
- (iv) Commercial staff should also be associated with transfer of injured passengers to hospitals,
- (v) Before doctors and supervisors leave the accident site for hospital duty, they should note down the DOT and Mobile Telephone No. of the accident site, CMS, MS and other doctors at the site for quick communication,
- (vi) Doctors going to different hospitals should have separate vehicles,
- (vii) In case sufficient number of railway vehicles are not available, they should hire taxis for their movement by withdrawing Cash from station earnings.

10. Post admittance hospital care :

- (i) One railway doctor, one commercial supervisor and one welfare inspector should be deputed round the clock at each hospital,
- (ii) Normally one doctor should look after one hospital, along with a commercial supervisor and WLI.

- (iii) If large no. of hospitals are involved 2/3 hospitals may be given to one doctor. In that case, the doctor, in consultation with CMS/MS, should station himself at the hospital where maximum no. of patients are admitted,
- (iv) Make an assessment about capabilities of the hospital to handle injured persons especially with reference to types of injuries they have suffered. Decide whether the patient needs to be shifted to other hospital with better facilities and then arrange to shift the patient,
- (v) In case any injured passenger succumbs to his injuries in the hospital, then the doctor in-charge of that hospital should update this fact to the medical counter at CAC.

11. Dealing with dead bodies ;

- (i) Problem faced by rescue teams is regarding dealing of dead bodies.
- (ii) On IR it is not clearly spelt out as to who will deal with them.
- (iii) Accident Manual is silent as to who will extricate dead bodies from coaches, and then take them to either hospital or the mortuary.
- (iv) It can only be inferred that Medical Department will do this work,
- (v) In case of a major disaster; the usual complement of medical staff in any' ARMV is grossly inadequate for undertaking work of this magnitude,
- (vi) Adequate number of Safaiwalas and other health workers who have come to the accident site should be mobilised for this purpose.
- (vii) Often rescue and relief operations continues for more than 48 hours,
- (viii) Dismembered bodies begin emitting foul odour after two days. Carrying out this task under such circumstances became a real problem,
- (ix) Target should be to extricate all dead bodies within 24 hrs.
- (x) Dead bodies should be dealt with coach wise; otherwise bodies taken out from different coaches get mixed up.
- (xi) Bodies taken out from coaches should be stacked at quite some distance from the track in front of respective coaches, in separate lots, coachwise. While this may slow down the work initially, in the long run it is more systematic since bodies don't get mixed up.
- (xii) Shift dead bodies from coaches to a nominated place at the accident site with the help of paramedical staff, SJ AB, Scouts, Civil Defence' personnel, other railway staff and non-railway volunteers available at site,
- (xiii) Ensure covering of dead bodies with shrouds,
- (xiv) Put cloth label (white cloth of 12" x 9" written by Marker pen) on each dead body on the chest just below the neck as below:
 - Date_____
 - Dead body Serial No. _____
 - Name _____
 - Age _____ Sex _____
 - Coach No. _____
- (xv) In case of unidentified dead bodies, against the item 'name', it should be written as unidentified-1/unidentified-2, etc. Approximate age should be estimated from the

appearance, such as between 35 - 45 years,

- (xvi) 5 photographs preferably by digital camera should be taken of each dead body. Two should be close up of face from in front and sideways: third should be with the label visible as per item (xiii) above and fourth and fifth should be of full length of the body.
- (xvii) If possible each body should also be video photographed,
- (xviii) After photographs have been taken, each body should be placed inside a plastic bag with zip having proper labeling system where same information is also to be provided.
- (xix) After this, bodies will be handed over to GRP or Local Police for safe custody,
- (xx) Take necessary steps to handle unhygienic condition that may arise due to decomposed/mutilated bodies.

12. Preservation of dead bodies ;

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

- Shrouds,
- Polythene bags,
- Coffins,
- Dry ice.

(xvi) 4 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.

(F) Duties of Commercial Department :

1. Main functions :

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

- (a) Withdrawl of cash from station earnings.
- (b) Hiring of road vehicles.
- (c) Providing beverages and catering to injured and uninjured passengers.
- (d) Initial round of hospitals and assessment of situation.
- (e) Preparing list of injured passengers.
- (f) Transporting them to hospitals and getting them admitted.
- (g) Payment of ex-gratia to injured and next of kin of dead,
- (h) Dealing with refund and claims compensation formalities,
- (i) Taking charge of luggage and consignments.
- (j) Post admittance hospital care of the injured,
- (k) Taking care of relatives.

2. General ;

- (i) Before Sr. DCM proceeds to accident site he should withdraw sufficiently large amount of cash from station earnings. (Para 3 below)
- (ii) At the accident site, handpicked commercial supervisors should be deputed for manning commercial counters in UCC and CAC.
- (iii) Each commercial counter in CAC is to be manned by one group as detailed in Chapter 11, Section 6(xiv).
- (iv) Different teams and groups will be formed for discharging various duties of the Commercial department as detailed in Section (F1) above. Each team should consist of 4-6 members and each group should consist of 3-5 teams, depending upon requirement,
- (v) Separate teams and groups should be formed as detailed below, headed by a commercial officer,
- (vi) One team will hire road vehicles for use and other related activities. (Para 4below)
- (vii) One group will arrange beverages and food both for injured as also for uninjured passengers. (Para 5 below)
- (viii) One team will take an initial round of hospitals along with doctors and assess the situation. (Para E4 above)
- (ix) One group should take care of uninjured passengers who have to be cleared from the accident site. (Para 6 below),
- (x) One group will assist Medical department in preparing a list of injured passengers input the same into the PC in CAC. (Para E above and Para 7 below))

- (xi) One group will assist Medical department in shifting injured passengers to hospitals. (Para E9 above)
- (xii) One group will assist the Medical department in preparing a list of dead bodies and looking after them. (Paras E11 and E12 above),
- (xiii) One team will make ex-gratia payment to injured passengers and next of kin of dead. (Para 8 below)
- (xiv) One team will deal with refund cases and claims compensation formalities. (Para 9 below).
- (xv) One group will be in-charge of unclaimed luggage and other consignments. (Para 10 below)
- (xvi) One group will be in-charge of post admittance hospital care of injured and taking care of relatives as detailed in Chapter 14 under 'Passenger Care'.

3. Withdraw! of cash from station earnings ;

- (i) In order to meet accident related expenditure, officers can withdraw money from station earnings duly following the procedure incorporated in Commercial Manual Vol. E Rule No. 2425.
 - Departmental expenditure necessitated by floods, accidents or earthquakes, etc. (8)
 - Ex-gratia payments to persons involved in train accidents. (22)
- (ii) Before Sr. DCM leaves for accident site, he should withdraw sufficiently large amount of cash from station earnings to meet with immediate requirements at the site.
- (iii) More should be withdrawn subsequently as and when required,
- (iv) Procedure and accountal as detailed below should be followed. (Para 11 & 12 below)
- (v) A commercial supervisor should be nominated for this purpose and he should withdraw Rs. 5 lakhs and carry it with him, duly escorted by RPF personnel.

4. Hiring of Vehicles ;

- (i) A large number of road vehicles are required at an accident site for following purposes:
 - Taking injured passengers to hospitals.
 - Taking doctors and other railway officials to hospitals.
 - Clearance of uninjured passengers.
 - Taking dead bodies to mortuaries.
 - Bringing men and materials, etc. to accident site.
 - Taking unclaimed luggage for being kept in safe custody.
 - Taking relatives to hospitals and mortuary.
 - Other miscellaneous work.
- (ii) For this purpose apart from whatever number of railway vehicles may be available, extra road vehicles should be hired,
- (iii) All road vehicles should be hired along with standby drivers for round the clock duty,

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

5. Catering arrangements :

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

6. Clearance of uninjured passengers :

- (i) First of all, arrangements for water and food for stranded passengers, should be made.
- (ii) Announcement should be made for registering names of safe passengers,
- (iii) Clearance of accident-affected passengers from accident site should be planned along with Operating branch who will provide the empty coaching rake,
- (iv) Make announcement through PA System informing passengers regarding their clearance from site either by:
 - Front portion of the accident involved train,
 - Rear portion of the accident involved train,
 - Empty coaching rakes that have been brought to the accident site, Road bridging that has been arranged.
- (v) Arrange adequate coolies for carrying passengers luggage while they transfer to the new train,
- (vi) In case of road bridging, arrange road transport to clear stranded passengers, record details of passengers dispatched and relay particulars, to Divisional Emergency Cell,
- (vii) Senior-most official at site shall have powers to arrange conveyance for affected passengers free of charge by any available mode of transport and also incur

expenditure ,for carriage of passengers' luggage, etc.

7. Preparing list of injured passengers :

- (i) Collect list of injured passengers prepared by TS/TTEs and assess the situation along with Medical department.
- (ii) Separate lists to be prepared coach wise by Medical department
- (iii) The list should contain following details:
 - If found Conscious: Name, sex, age, identification marks, address, ticket number, originating and destination station.
 - If found Unconscious: Approximate age, sex, identification marks, ticket number and other particulars if relatives and friends are available,
- (iv) Once the preliminary list of injured passengers has been prepared, the list should be signed by the CMS/MS Incharge and a copy handed over to commercial department.
- (v) This list should be input into the PC available in the CAC.
- (vi) The list should also be E-Mailed to the Divisional Emergency Cell and Hqtr. Emergency Cell.
- (vii) The list of dead and injured that is initially fed into the PC will thereafter be updated periodically, as rescue and relief work continues.

8. Amount of Ex - Gratia payable :

- (i) The amount of ex-gratia relief payable to injured passengers or to dependants of dead only in train accident are as under:
 - (a) In case of death - Rs. 50,000/-
 - (b) Grievous injury Rs. 25,000/-
 - (c) Simple injury Rs. 5,000/-
- (ii) The amount of ex-gratia relief admissible to road-users who meet with an accident due to Railway's prima facie liability at manned level crossing gate accidents will be as under:
 - (a) In case of death - Rs. 50,000/-
 - (b) Grievous injury Rs. 25,000/-
 - (c) Simple injury Rs. 5,000/-
- (iii) Payment of ex-gratia will be made on the basis of categorization of their injuries made out by doctors at site,
- (iv) No ex-gratia payment would be admissible to trespassers; persons electrocuted by OHE and road users at unmanned level crossings,
- (v) Ex-gratia payment should also be made to railway staff killed or injured by a moving train while performing their duty, for example, gangman working on track run-over accidentally by a moving train,
- (vi) Ex - gratia amount is to be paid in cash,
- (vii) In case of injured passengers, ex-gratia should be paid to the injured passenger himself or in case he is too ill, to his relative in his presence,
- (viii) In case of death cases where relatives identify and claim the body, following precautions are to be taken:

- (a) Photograph the face of the body from in front and from the side.
- (b) Photograph the person taking the ex - gratia payment.
- (c) Record the relationship of the person claiming the body along with details of proof, if any.
- (d) In case enhanced ex - gratia is announced by the Hon'ble MR, then the enhanced amount should be paid by cheque by Accounts department.
- (e) Ex - gratia paid is not to be adjusted against claims compensation payable as decreed by RCT subsequently.
- (ix) Payment should be arranged preferably on the spot by a senior scale officer nominated by GM after making such enquiries as can be reasonably made on the spot after immediate needs by way of medical' attendance etc. to injured persons have been attended.
- (x) For payment of ex-gratia, and to meet other expenses at site, one commercial inspector, authorized by Sr. DCM shall withdraw Rs. 5 lakh from station earnings of a nearby station, and shall be available at site duly escorted by RPF personnel.
- (xi) Sr. DCM/DCM will ensure availability of sufficient cash for payment of ex-gratia/ refund.

9. Refund and Claims Compensation :

- (i) Refund of fares must be granted hi the CAC for unfinished journey as per rules.
- (ii) Injured passengers and next of kin of deceased passengers must be supplied with blank claims compensation forms along with Claims Booklet explaining complete procedure.
- (iii) Photocopy of a filled up Claims Compensation form may also be given along- with the blank form so as to help them in filling it up.

10. Luggage and consignments :

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

- (xi) Booked perishables available in SLRs, VPUs should be taken out and either auctioned at site or sent by road to nearest In. station for being auctioned.
- (xii) RMS consignments on the train should be shifted to school building for safe custody till Postal Authorities come and take over custody.

11. Withdrawal from station earnings - procedure :

- (i) In order to meet accident related expenditure, officers can withdraw money from station earnings duly following the procedure incorporated in Commercial Manual Vol. H Rule No. 2425.
 - Departmental expenditure necessitated by floods, accidents or earthquakes, etc. (8)
 - Ex-gratia payments to persons involved in train accidents. (22)
- (ii) The nominated supervisor incharge of the department concerned may alone withdraw from station earnings through a requisition in respect of the above items specified in rule 2425 of the IRCM.
- (iii) This requisition should be made in the form appended below indicating the official making such withdrawal, the departmental officer concerned and also the purpose of withdrawal.

From	To
Name of Supervisory Official	Station Master
Designation/ Station	Station

Please arrange to pay from Station Earnings an amount of Rs. _____
 (Rupees _____) towards _____
 _____ (Purpose to be indicated). This is one of the
 authorized items of withdrawal from Station Earnings. The expenditure is
 chargeable to the head _____.

Accounting Authority
 Controlling Officer
 Designation
 Station

Payment made from station	Received an amount of Rs.
earnings amount:	from station earnings

Signature of	Signature:
SM/SS	Designation:

- (iv) Requisition is required to be prepared in triplicate. 1st to be kept as record, 2nd to be presented to SM for arranging payment against proper acknowledgement and 3rd should be sent to Sr. DAO concerned duly countersigned personally by the

Divisional Officer of the department.

- (v) Any failure by the supervisory official withdrawing cash to follow above instructions or any other irregularity will render him personally responsible and liable for action under Discipline & Appeal Rules.

12. Withdrawal from station earnings - accountal ;

- (i) Branch Officer concerned shall forward requisitions received from stations to the Divisional Accounts Office indicating circumstances under which the withdrawal was necessitated.
- (ii) The countersigned requisition shall be accompanied by relevant supporting paid vouchers. Timely submission shall be monitored by the Branch Officer so that they reach Accounts Office within 15 days from the date of withdrawal.
- (iii) Executive Officer concerned shall furnish full particulars of the amount withdrawn, details of payments made, reasons for the payment, the rate and period for which payment is made and the total amount paid with the acquittance of the payee with necessary revenue stamp wherever due to Sr. DAO.
- (iv) Sr. DCM will compile a monthly statement of all withdrawals pertaining to his division obtaining a statement from various executives in his division and send it to CCM.
- (v) A monthly return of requisitions issued during the period should be submitted to the Accounts Office by Executive Officers.

SITE MANAGEMENT PLAN – III

(Chapter -14)

(A) Duties of Mechanical Department :

For discharging the dual responsibility of extricating injured passengers & dead bodies from coaches and toppling those coaches whose search has been completed, 2 separate groups will be formed at each end for purposes of 'search and rescue' and 'off tracking of coaches'.

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

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

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

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

- (i) Take precautions in electrified section that power supply is switched off before commencing rescue/relief work.
- (ii) Use necessary safety equipment like hand gloves, helmet etc.
- (iii) If spillage of inflammable substances is suspected, then only cold cutting equipment should be used,
- (iv) In case of suspected sabotage, ensure minimum interference to clues. Save lives and extricate passengers after video and digital photographs have been taken,
- (v) Be cautious' in using rescue tools like gas cutters, cold cutters, spreaders, hydraulic jacks etc. so that passengers trapped inside or buried under the debris do not get hurt,
- (vi) Ensure marshalling of ART according to site requirement before it is sent into the accident involved block section,
- (vii) For efficient extrication of entrapped passengers take assistance of Medical/ Engineering departments,
- (viii) Each team will join up with Medical teams who would also be involved in extracting dead and injured from coaches,
- (ix) Maximum number of coaches should be tackled simultaneously, except those that have climbed on top or have telescoped into one another,
- (x) Road cranes of sufficient capacity should be arranged so that these cranes can start working from the center while the 140T cranes can continue working from either end.
- (xi) Trucks should be arranged for carrying BD equipment near to accident involved coaches, so that number of coaches can be simultaneously approached and more work centers can be opened up.

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

(B) Duties of Security Department;

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

- (a) Co-ordination with GRP and Local Police.
- (b) Crowd management.
- (c) Protection of luggage.
- (d) Protection of railway property.

1. Liaison with Civil Police :

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

2. Crowd Management :

The first problem at an accident site is that of surging crowds. Carrying out any kind of rescue and relief operation becomes next to impossible. Railwaymen who try to undertake any kind of rescue and relief work become victims of mob fury.

- (i) Cordon off the site and prevent unauthorized entry of outsiders.
- (ii) Segregate the area of accident by putting up temporary barriers using nylon ropes or any other make-shift device available at the scene so that outsiders do not disturb the site or hamper rescue operations,
- (iii) These barriers should be at quite some distance away from the track, so that UCC, CAe and LCCs are inside the cordoned off area,
- (iv) Provide barricade and ask for additional force to control crowd during VIP visit.

3. Protection of luggage :

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

4. Protection of railway property :

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

5. General :

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

(C) Duties of Electrical Department :

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

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

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

1. Site illumination :

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

- (i) Senior most electrical officer at site would make a quick assessment of the electrical requirement of the site,
- (ii) This would be done keeping in mind the geographical spread of the site, the size of UCC, LCCs, CAC and any other requirement as necessary,
- (iii) Thereafter, he would assess the quantity of electrical fittings and generating sets available in ARMVs and ARTs.

- (iv) In order to set up adequate illumination facilities, all generating sets and lighting fixtures available in ARMVs and ARTs would be used,
- (v) First priority for lighting would be the accident site along the track where rescue, relief and restoration work is going on.
- (vi) Next priority would be given to lighting up of UCC, CAC and LCCs.
- (vii) Additional requirements of generators and lighting fixtures, if any, should be called for immediately from other railway sources within the division, well in time,
- (viii) In case divisional sources are inadequate, then sources from other divisions should be tapped,
- (ix) Officer at site should hire additional generating sets, lighting fixtures etc. as required, from non-railway sources available nearby. List of such sources are given in Divisional DM Plans,
- (x) Once generators and lighting fixtures have been set up, efforts should be made to tap direct power supply from some nearby sources, if available,
- (xi) In case power supply is not available nearby and illumination has to continue on generator supply, then sufficient quantity of petrol and diesel should be procured and kept in stock.

(2) OHE at site ;

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

- (i) In case OHE is to be brought down, then the same should be done . immediately so that working of crane does not get held up on account of OHE.
- (ii) In case slewing of OHE suffices for some sections, then the same should be done quickly so that working of crane does not get held up on account of OHE.
- (iii) Sr. DEE/TRD shall arrange movement of 6 Tower Wagons along with men and material from adjacent depots from both sides of accident site.
- (iv) In case more tower wagons are required these should also be requisitioned from other depots along with men and material.
- (v) An assessment should also be made of the extent of damage to OHE masts, and other equipment.
- (vi) Additional requirement of materials, if any should be called for immediately from other railway sources within the division.
- (vii) In case divisional sources are inadequate, then sources from other divisions should be tapped.
- (viii) In case other divisional sources are also inadequate, then sources from other zones should be tapped.
- (ix) Availability of OHE masts is a long lead item. Requirement of masts should be quickly worked out so that these can be moved immediately.
- (x) Ensure temporary portals are erected without delay.
- (xi) In case damage to OHE is extensive and a wiring train is considered to be more efficient, then the same should arranged for from other zone after . discussion with RE organization.

- (xii) Ensure that the section is earthed before staff starts working near OHE.
- (xiii) OHE should not be charged until all staff, tower wagons, cranes etc. have cleared the block section.

(D) Duties of Signal & Telecommunication Department :

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

1. Types of communication facilities :

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

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

2. Locations :

These should be provided at following locations:

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

3. Numbers to be provided :

- (i) Satellite telephones - 5 to be provided. 2 in UCC, 1 in CAC, 2 for passengers.
- (ii) BSNL telephones - 2 in UCC, 3 in CAC and 1 in each hospital.
- (iii) Mobiles - as many as can be arranged in UCC and CAC. In addition to above at least 2 in each hospital.
- (iv) Walkie - Talkie sets - each functionary should be covered, (v) One 25W VHP sets shall also be provided in UCC.
- (vi) One 25W VHP set shall be installed in a road vehicle so that mobile communication can be set up, upto a range of about 15-20 Kms.
- (vii) Railway telephones - each functionary hi UCC, CAC and LCCs should be covered,
- (viii) In RE area emergency sockets will be utilized for extending communication to the accident site and hi non-RE area where 6 Quad cable is available the same will be utilised for providing communication,
- (ix) PA system - at UCC, CAC and LCCs.

4. Public Address System :

- (i) Provide adequate number of PA system, Handsets.
- (ii) PA system should be provided in UCC, CAC and LCCs. These are to be used for communicating with passengers and for giving directions to railway staff,

- (iii) For this purpose, additional PA systems may become necessary depending upon the requirements at accident site.
- (iv) Mega mikes available in ART will also be utilized,
- (v) Volume of PA system in UCC, CAC and LCCs should be so adjusted that announcements made over one of them reaches only those areas which are under its jurisdiction. It should not interfere with announcements being made by other PA systems.

5. General ;

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

(E) Duties of Engineering Department ;

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

- (i) AEN/SSE (PWay/Works) shall collect men, rescue tools and arrive at site by fastest means possible.
- (ii) Setup UCC, CAC and LCCs at the accident site,
- (iii) Assist Medical/Mechanical Department in rescue work,
- (iv) If necessary contact Army/Navy/Air Base and collect required personnel like Divers for rescue operation
- (v) If necessary hire Private Road Cranes, Bulldozers, Earth movers etc.
- (vi) 2 Engineering specials, one from each end, carrying engineering material and gangmen from the section,
- (vii) Additional requirements of track materials, if any, should be called for immediately from other railway sources within the division, well in time,
- (viii) In case divisional sources are inadequate, then sources from other divisions should be tapped.
- (ix) 500 additional workmen are required who are to be moved from adjoining divisions/zones,
- (x) Each such division sending assistance should move 250 men along with 5 artisans' and 5 PWIs.
- (xi) One DEN and one ADEN each should also move to the site of accident from each such division,
- (xii) Plan for coordinated working and movement of track machine for quick restoration in consultation with TRD and operating officials.

(F) Duties of Personal Department ;

- (i) Sr. DPO shall proceed to accident site along with all WLIs.
- (ii) Assist Doctors in collecting details of injured/dead and shifting them to hospitals.
- (iii) WLIs shall be available round the clock hi shift duty to look after the welfare of injured persons in each hospital.
- (iv) Issue complimentary return journey passes to relatives for escorting injured and taking them back home.

- (v) Man personnel branch counters in CAC and discharge duties listed out for those' counters.

(G) Duties of Accounts Department :

- (i) Making available sufficient amount of cash for meeting emergent expenses.
- (ii) Opening of current account in a local bank and getting permission for over draft facilities So that large amount of cash is not required to be carried from far off stations.
- (iii) Issue of cheques for making of enhanced ex-gratia payments, if so announced at accident site by Hon'ble MR.

(H) Staff matters :

- (i) First problem is of identifying railway personnel.
- (ii) They should be supplied with orange coloured armbands to be kept in ARMVs/ARTs.
- (iii) Adequate number of armbands, gloves and face masks should also be provided in the ARMVs/ ARTs.
- (iv) Second problem is of communicating with railway personnel in the crowd.
- (v) Microphones/loud speakers provided in ARMVs / ARTs should be used both for crowd control as also for giving instructions to railway personnel working at accident site.
- (vi) Once initial rescue operations have got underway, arrangements have to be made for water and food for railway staff working at site. Contract arrangement should be made for supply of food.
- (vii) Spare coaches should be stabled at nearby stations where watering and charging facilities are available for stay of staff.

PASSENGER CARE

(Chapter -15)

1. **General :**

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

2. **Hospitalization of the injured :**

- (i) General policy in case of railway accidents in which casualties occur is that of rapid evacuation to railway hospital after rendering immediate and necessary first-aid treatment.
- (ii) In case there are no railway hospitals nearby, then they are to be admitted in the nearest Govt. hospitals,
- (iii) In following cases, injured may be taken to a Private Hospital.
 - When there is no railway or Govt. hospital available within a radius of 8 kms. of 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 lowest class of accommodation in 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.
- (iv) For this purpose, each division should make out a working arrangement with such private hospitals as may be necessary in areas served by them so that in an emergency injury cases can be referred to hospitals concerned without loss of time,
- (v) To facilitate matters and to avoid misunderstandings, CMD should draw up a list of such private hospitals bearing in mind Railway and non-Railway hospitals in the vicinity,
- (vi) CMD should also settle charges to be paid for such cases for each class of accommodation,
- (vii) Bills by such private hospitals should be submitted through CMD who will certify the correctness of charges payable, before passing for payment by FA&CAO.
- (viii) Payments to private hospitals under this para can be arranged locally by the Railways and Ministry of Railways approval is not necessary.

(Extract of Para 701(1) & Para 712 of Chapter VH of IRMM and Para 1421 of Indian Railway Establishment Manual and MA.R's letter No. MH 59/MES/96/ Medical dt 18/12/1959)

- (ix) When injured are admitted in non-railway hospitals, railway doctors should be deputed to these hospitals to render necessary assistance, including supply of medicines as required which may not be available in these hospitals,
- (x) They should also carefully monitor the condition of injured and maintain an updated list with all details,
- (xi) If more than one hospital is involved, apart from deputing doctors to individual hospitals, a railway doctor should also be deputed to coordinate and maintain centralized updated position.

3. Facilities to be made available in hospital ;

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

4. Communication :

- (i) STD equipped telephone should be made available to passengers to communicate with their relatives,
- (ii) BSNL/Railway Telephones available at adjoining Stations/Cabins/Gates shall be extended to the accident site,
- (iii) PCO telephones and other BSNL phones in nearby localities/villages/towns shall also be extended to the accident site by persuading owners of these phones,
- (iv) Payments for such telephone connections will be made from station earnings,
- (v) Sr. DSTE should hire few mobile phones to meet the need of stranded passengers, wherever cellular phone connectivity is available. Stranded passengers should be permitted to use these phones free of charge,
- (vi) These cell phones should be used to convey information regarding the safety of passengers to their friends and relatives.

5. Arrival of relatives ;

- (i) After a few hours, next of kin of deceased and relatives of injured passengers start arriving at the accident site,
- (ii) Adequate number of display boards should be available on ARMVs / ARTs for being put up at accident site.

- (iii) By and large these display boards should indicate the direction towards the CAC.
- (iv) These indication boards should be displayed near those areas where incoming relatives arrive and congregate,
- (v) Periodic announcements on loud speakers should also be made for guiding them to the CAC.
- (vi) CAC should have different counters for various purposes as detailed below in Section 8.

6. Taking care of relatives :

- (i) At CAC, number of commercial supervisors & WLIs should be available for the purpose of taking arriving relatives to different hospitals etc.
- (ii) After relatives arrive they should first of all go through the reservation charts, and locate the name of the passenger,
- (iii) Thereafter if details are available as to which hospital passenger has been admitted then commercial supervisor or WLI should accompany him to that hospital.
- (iv) A hired vehicle should be provided for carrying them to various hospitals and mortuary,
- (v) The commercial supervisor or WLI should stay with the relative until he has been able to either find the injured passenger or identify the dead body,
- (vi) Thereafter, they should help him in completing all formalities in the CAC.

7. Single window clearance :

- (i) CAC should have provision of single window clearance for all legal formalities & multiplicity of paper work,
- (ii) Counters provided in CAC should have facilities for following items in the given sequence as indicated in Annexure - 3:
 - (a) Reservation chart, for locating the name.
 - (b) List of dead and injured along with name of hospital. The name of passengers involved should be checked up from the list of dead or injured, if available, and then- current status informed
 - (c) Counter for providing commercial supervisor or WLI as escort along with a vehicle, for accompanying the relative and going around to various hospitals or mortuary.
 - (d) Railway doctor for issue of Medical Death Certificate.
 - (e) Govt. doctor for issue of Post Mortem Clearance, in case the same is necessary.
 - (f) Municipality official for issue of Official Death Certificate.
 - (g) Local police for issue of authority for handing over of dead body.
 - (h) Claims counter - Payment of ex-gratia and issue of Claims Compensation Form.
 - (i) Counter for helping performance of last rites in case relatives decide to cremate the body there itself.
 - (j) Pass counter for issue of return journey pass,
 - (k) Return journey facilitation counter will make arrangements for return journey.

8. Stay of relatives of dead and injured:

- (i) Commercial supervisor or WLI deputed with relatives should also arrange for their stay and accommodation,

- (ii) Depending upon the need, accommodation in hotels/dharamshalas would be hired for accommodating passengers,
- (iii) Arrangements should be made for their meals etc. Contract should be given for providing cooked food to relatives.

9. Performance of last rites ;

- (i) In many cases relatives decide to perform last rites at the place of accident itself instead of taking the body back to their native place,
- (ii) This is mostly on account of:
 - Bodies being mutilated,
 - Bodies being in a state of decomposition,
 - Native place being far off,
 - For overcoming logistic problems of taking the body back,
- (iii) In such cases railways should render appropriate assistance to relatives for performing last rites,
- (iv) Railways should locate :
 - The nearest cremation or burial ground as the case may be.
 - Shopkeepers who supply necessary material for funeral rites.
 - Priest for performing the ceremony,
- (v) The above information would be conveyed to relatives and transport provided for carrying the body.
- (vi) Above duties are to be performed by Personnel department.
- (vii) Commercial supervisor or WLI who has been deputed for relatives of a particular passenger should help them out in this endeavour.

10. Departure of relatives of dead and injured:

- (i) CAC should have counters for helping relatives regarding their return journey.
- (ii) Personnel branch staff at the CAC should be available for issuing complimentary passes for their return journey,
- (iii) Reservation of berths should be provided on trains. Such reservation should be provided only from the accident site onwards,
- (iv) Extra coaches should be attached to trains going to these destinations for the next 2 or 3 days. These extra coaches should be brought in locked condition from the originating station,
- (v) Reserved space in luggage portion of SLRs for some of them to carry back bodies in coffins etc, in case they so desire.

MEDIA MANAGEMENT PLAN

(Chapter -16)

1. Objective :

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

2. Duties of PR Organization ;

- (i) CPRO and his team will collect whatsoever information is available from Divisional Control Office and first information would be released to the media within 60 minutes of intimation of the accident.
- (ii) The information shall include telephone numbers of Helpline Enquiry Booths,
- (iii) CPRO, PRO and the entire PR organization should proceed to the accident site in the 1st Special train carrying GM and other Hqtr. officers,
- (iv) Number of photographers with digital cameras and video photographers should also be taken along to the accident site.
- (v) Both CPRO and PRO will be available in the UCC during the day.
- (vi) Responsible PR supervisors should be deputed during night shift for interacting with the media, if necessary.
- (vii) CPRO will organize Press Briefings at fixed timings as detailed in Section 6 below,
- (viii) PR organization shall monitor various important media channels to keep track of media reporting. Suitable corrections/clarifications may also be issued, if required.

3. Spokes person :

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

4. Information to be relayed to Press and Electronic Media :

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

(a) Accident :

- (i) Nature of the accident - date, time, place, exact location, train no., number of

coaches involved etc.

- (ii) Details of how the accident most probably occurred,
- (iii) Prima-facie cause of the accident will be relayed to Media only with the approval of GM.
- (iv) Sabotage, even if suspected, will not be relayed to Media, without approval of Railway Board.
- (v) Periodic reports regarding progress of rescue and relief work,
- (vi) Expected date and time of restoration.

(b) Uninjured Passengers;

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

(c) Dead and Injured passengers :

- (i) Steps taken by Railways to render immediate medical attention,
- (ii) No. of injured passengers rescued,
- (iii) Breakup of their injuries: -
 - Grievous,
 - Simple,
 - Trivial.
- (iv) Names of hospitals where injured are being treated.
- (v) Approximately how many patients have been admitted in each of these hospitals,
- (vi) Names of injured passengers.
- (vii) Communication facilities like cell phones, STD phones provided at these hospitals,
- (viii) Payment of ex-gratia.
- (ix) Facilities offered to relatives of victims, including free pass for journeys,
- (x) Special trains being run for bringing relatives of dead and injured, (xi) Number of dead bodies recovered and number of bodies identified,
- (xii) Identification of dead bodies takes much longer since either
 - They were travelling alone, or
 - Then- companions are injured and are not in a position to identify them, or
 - Their companions have also perished.
- (xiii) Under such circumstances it is possible to identify dead bodies only when

relatives come from their hometown.

- (xiv) This aspect of identification of dead bodies and reasons for delay should be explained to the media.

(d) Helpline Enquiry Booths :

- (i) Setting up of Helpline Enquiry Booths.
- (ii) Details of Helpline Enquiry Booths as follows:
 - Stations where these have been opened.
 - Telephone Nos.
 - FAX Nos.
 - Internet address of NCR on the railnet website, (www.ncr.railnet.gov.in).

(e) Train Services :

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

5. Casualty figures :

- (i) In all accidents, as long as rescue and relief work continues, there is always a difference between casualty figures given by railways and casualty figures quoted by the Media.
- (ii) The reason for this difference is that railways give casualty figures based on actual number of dead bodies recovered; whereas Media estimates casualty figures based on the damage visible and likely final tally,
- (iii) During Press Briefings, this point should be clarified that at that point of time so many bodies have been recovered,
- (iv) However, it should also be made clear that casualty figures are likely to go up since rescue work is still continuing,
- (v) Assessment regarding likely number of deaths and injuries may also be made if considered necessary. Such an assessment should be based on:
 - Total number of coaches involved. Number of coaches searched.
 - Number of coaches yet to be dealt with,
- (vi) Particular reference should also be made to coaches that are crushed or that have climbed on top, and have not yet been searched.
- (vii) For example, the media can be informed that as of 137- hrs., 2 coaches have been dealt with and no. of bodies have been recovered. 8 more coaches are still to be searched and casualties are likely to go up.

6. Press Briefings at accident site :

- (i) CPRO on arrival at accident site shall collect factual information from the OC Site and relay the same to Media personnel at site and also to Divisional Emergency Officer in the Divisional Emergency Cell. Thus, an on line communication channel will be established to keep media informed of all important details.
- (ii) The first Press Briefing will be held within one hour of CPRO's arrival at site. Subsequent briefings will be held according to the schedule given below,
- (iii) CPRO or PRO should be available in the UCC during Press Briefings,
- (iv) There should be fixed time Press Briefings so that there is no confusion regarding different versions given to separate channels at various points of time.
- (v) Simultaneous Press Briefings should be held at accident site as also at Hqtr. Emergency Cell and Divisional Emergency Cell as per fixed timings given below, so that the same version is given by all concerned,
- (vi) Information to be given to the media will be of -/30 hrs. earlier. For example the media briefing held at 7/30 hrs. will convey all information as at 7/- on that date,
- (vii) On the first two days, there should be 6 media briefings per day. These should be scheduled at the following timings: 7/30 hrs. 10/30 hrs. 13/30 hrs. 16/30 hrs. 19/30 hrs. 22/30 hrs.
- (viii) Thereafter, for the remaining days, there should be 3 media briefings per day. These should be scheduled at the following timings : 7/30 hrs. 13/30 hrs. 19/30 hrs.
- (ix) All media releases will be up loaded on the North Central Railway website, and new page opened to give specific information with regard to the accident. The priority of information release to various media will be as under:
 - TV Channels.
 - Agencies - UNI, PTI, Varta, Bhasha.
 - Print Media.
- (x) Convenience and conveyance of media shall be taken care of by PR personnel with assistance of Commercial representatives at site. Media persons should be conducted to hospital- where injured are being treated.
- (xi) Commercial department should ensure that list of passengers who traveled by the accident involved train along with list of dead and injured in the accident reach PR officials at the earliest.

FIRE AND OTHER ACCIDENTS

(Chapter -17)

Fire on a running train is more catastrophic than on a stationary one, since fanning by winds helps spread the fire to other coaches. Moreover, passengers 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.

(A) FOLLOWING SOURCES ARE MAIN CAUSES OF FIRE IN TRAINS ;

- (i) Carrying stoves, sigris, gas cylinders, kerosene oil, petrol, fire works 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 in 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 it is surrounded by burning materials with adequate supply of air, fire spreads.

(B) ACTION TO BE TAKEN IN CASE OF FIRE IN TRAIN ;

- (i) First and foremost immediately summon the fire brigade.
- (ii) Secondly, if you smell gas or vapour, or even in case of excessive smoke, hold a wet cloth loosely over your nose & mouth and breath through it in as normal a manner as possible.

1. 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) Advise 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.

2. 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) Isolate the burning vehicle from other vehicle by uncoupling,
- (xi) Train to be protected by Loco Pilot 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 labels, 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 Loco Pilot 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.

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

- (i) Loco Pilot shall immediately switch off the circuit and lower the pantograph. The train shall then be brought to a stop at once,
- (ii) After disconnecting the electric 'supply to affected circuits, Loco Pilot shall take necessary action to put out the fire,
- (iii) If fire cannot be extinguished by the above means Loco Pilot shall 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 Loco Pilot in putting out the fire,
- (v) Ordinary fire extinguishers or water from a hose pipe shall on no account be used to extinguish fire on live wire or electrical equipment,
- (vi) If services of fire brigade are required, fire brigade shall not be allowed to commence operation until all electrical equipment in the vicinity of the fire have been made dead.

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

- (i) The Loco Pilot /Motorman shall immediately switch off the circuit breaker and shut down the engine. The train shall be brought to stop at once.
- (ii) The Guard shall give all possible assistance to the Loco Pilot in putting out the fire,
- (iii) Fire extinguishers of approved type shall be provided on each diesel locomotive and motor coach of DMU when these are turned out from the home shed. The

Foreman/CWS in charge of the shed shall inspect the fire extinguishers and ensure that these are in good working condition.

5. **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.

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

- (i) Segregate the affected wagon, coach or area involved.
- (ii) On opening a wagon do not enter it immediately. You would thus, avoid' fumes, which may be dangerous,
- (iii) Use foam type fire extinguishers 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 discolouration of tank due to fire,
- (ix) Inform the nearest Fire Stations intimating that the fire has been caused by Petrol or any other inflammable liquids, acids or gases.

7. **In case of fire due to Explosives/Inflammables/Dangerous Goods :**

- (i) Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls,
- (ii) Following steps may be taken if no undue risk is involved:
 - (a) Move unheated cylinders to a safe place after ensuring closing of valves.
 - (b) Cool the hot cylinders by spraying water from a safe position. The person directing the spray should take up a position where he would be protected from possible explosion.
- (iii) If cylinder containing inflammable/toxic gas develops leak during transportation, remove it to an isolated open place away from any source of ignition and advise the filler or consigner as required.
- (iv) Inform the Chief Controller of Explosives by fax/telephone.
- (v) Inform officer in charge of nearest police station.
- (vi) Inform departmental officers concerned.
- (vii) Pending the visit of the Chief Controller of Explosives/his representative, the wreckage and debris shall be left undisturbed except to save lives.
- (viii) After getting information from the Chief Controller of Explosives that he does not wish any further investigation, the restoration work may be commenced.

(C) FIRE FIGHTING :

1. Dry chemical powder type fire extinguisher (DCP) :

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

2. How To Use;

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

3. Building Evacuation ;

When the building fire alarm sounds:

- (i) Immediately evacuate using building emergency plan procedures.
- (ii) Walk to nearest exit/stairwell (close doors behind you)
- (iii) Do not use elevators.
- (iv) Proceed to the designated gathering area outside the building
- (v) Do not re-enter building until cleared by authorized personnel.
- (vi) Assist with evacuation of individuals with special needs.

4. Suspicious substance in Railway premises :

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

5. Bomb threat/Blast ;

Person receiving call regarding bomb threat should :

- (i) Attempt to gain as much information as possible from the caller like type of device, time set, location, reason/purpose of the act, dialect mannerism and identity of the caller.
- (ii) Inform and alert the disaster management team (Bomb detection squad),
- (iii) Alert police, fire brigade and explosive department,
- (iv) Pass on the information to all departments concerned,

- (v) Take initiative for evacuation of all persons from premises,
- (vi) Person noticing a bomb like object, should bring it to the notice of the nearest available officer.
- (vii) Inform GRP, RPF, 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.

6. Radiation Emergency :

(a) Personal injury involving Radioactive material contamination :

- (i) Render first aid immediately for serious injuries, as trained, (ii) Call bomb squad, fire station.
- (iii) If possible, without causing harm to the victim, monitor the injured; remove contaminated clothing and gross personal contamination.

(b) Radioactive contamination of personnel :

- (i) Remove and bag all contaminated clothing.
- (ii) Call fire station, bomb squad, police
- (iii) Skin contamination should be cleaned using mild soap and tepid water. Use portable survey meter to monitor for remaining contamination. If not free of contamination, re-wash and resurvey.

7. 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.

8. If parcel is Open and/or Threat is identified :

(a) For a Bomb :

- (i) Evacuate immediately
- (ii) Call police/fire service/ Bomb squad.

(b) For Radiological :

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

(c) For Biological or Chemical :

- (i) Isolate - don't handle

- (ii) Call police/fire service/bomb squad.
- (iii) Wash your hands with soap and water.

(D) OTHER ACCIDENTS :

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

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

2. Earthquake :

- (i) When first tremors are sensed during an Earthquake, all personnel should evacuate buildings and assemble at safe places away from structures, walls and falling objects.
- (ii) Emergency shutdown should be declared.
- (iii) Emergency response plan to be activated.
- (iv) After status is restored, personnel should inspect all facilities for damage assessment, cleanup, restoration and recovery.

3. Landslide ;

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

4. Floods ;

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

- (i) Bridge watchman to be provided at vulnerable points to inform flow of water.
- (ii) Shifting all personnel and movable equipment around the bank.
- (iii) If time permits sandbag dykes can be constructed to ensure safe passage of trains.
- (iv) Regulate train service till flood recedes
- (v) Evacuate peop'le on train/at station and move them to a safer place,
- (vi) Contact Fire brigade, Naval, Army, Air force, and Local boatman and arrange divers, and boats,
- (vii) With the co-ordination of local authorities the Engineering officer/supervisor or other supervisors at that station shall arrange temporary shelter in nearby schools, marriage hall, community center etc.
- (viii) If necessary, arrange coaches to accommodate the affected temporarily.
- (ix) Seek assistance from voluntary organization and arrange drinking water, food, medicines etc.
- (x) RPF and GRP in co-ordination with local police shall arrange protection, (xi) Keep communication with Divisional Control Office,
- (xii) When people are marooned by flood, arrange air dropping of food packets, cloths

etc., with the assistance of civil administration.

- (xiii) Contact JAB, local doctors and provide medical care to the affected,
- (xiv) Take all necessary action to provide shelter and other assistance to those affected by floods.

5. **Cyclone/Storm :**

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

- (i) Stop the train clear of cuttings, bridges and embankments.
- (ii) Guard, Loco Pilot 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.

TRAINING AND MOCK DRILL

(Chapter -18)

Trained manpower is an essential ingredient of any DM system. Mere provision of sophisticated equipment without trained manpower is futile. For handling an unforeseen situation like managing a Disaster, training of all railway personnel concerned is an inevitable input. To acquire necessary knowledge and skill, all relevant officials should be given periodic training regarding then- duties and that of their department.

1. Training :

Training should be conducted at the following three levels:

- **Individual Training :**
 - (i) For enhancing, the skill of staff attached to ARMVs, ARTs, etc., supervisors and staff shall be given general training in Disaster Management.
 - (ii) Special training may be arranged in Extrication, Rescue, Medical relief, Rolling stock restoration technique and Civil Defence by departments concerned .
- **Seminars/Workshops :** Seminars should be periodically conducted on Disaster preparedness, and the DM Plan.
- **Joint Exercises :** Full scale Disaster Management Mock Drill to be conducted as detailed below.

2. Full Scale Mock Drill :

Disaster Management essentially necessitates a state of preparedness under all circumstances and the efficacy of arrangements therein can be assessed only by conducting periodical full-scale mock drills.

- (i) Objective of the full'scale mock drill would be to :
 - Gauge the preparedness of DM system including detailed planning and keeping of all equipment in good fettle.
 - Integrate the operational response to measure overall performance of the exercise. Measure performance with regard to accident restoration.
- (ii) On a division, the first mock drill should be conducted within 3 months of issue of the Zonal DM Plan.
- (iii) On a division, the second mock drill should be conducted 3 months after the first one, in order to correct all shortcomings noticed during the first mock drill.
- (iv) Thereafter, mock drills shall be conducted once every 2 years after the new DRM takes over.
- (v) It should be conducted during the day and in a branch line section.
- (vi) 6 hrs. traffic block shall be taken and the ARMV / ART run out to the accident site.
- (vii) UCC and CAC should be set up and each department will post their functionaries in the Control Office as also in UCC and CAC.
- (viii) All facilities should be provided in UCC and CAC by departments concerned,
- (ix) During these full scale mock drill, following aspects shall be closely watched:
 - Turning out of ARMV / ART within the prescribed tune.

- Speed of the specials.
 - Assembly of staff.
 - Handling of ART, HRDs, HREs and other rescue equipment.
 - Logging of events.
 - Functioning of field telephones and communication network.
 - Functioning of generator sets, lighting equipment.
 - Preparedness of first-aiders and availability of medical equipment.
 - Preparedness of commercial department to mobilize adequate manpower.
- (x) On completion of the drill, a detailed report shall be prepared detailing deficiencies noticed, corrective measures initiated and improvements required.

MANAGEMENT OF CRISIS

(Chapter 19)

1. To deal with the crisis situations, the following committees shall be activated :

- (a) National Crisis Management Committee (NCMC).
- (b) Crisis Management Group (CMG), and (c) Zonal Management Group (ZMG).

1.1 National Crisis Management Committee (NCMC) :

1.2 The NCMC is the apex body comprising senior officials of the Government of India to deliberate on the problems at national level. The following officers will represent the Ministry of Railways (Railway Board) in NCMC for the various crisis situations:-

- | | | | |
|-------|--|---|---|
| (i) | All India Railway Strike | : | Member Staff
Member Mechanical
(Alternate) |
| (ii) | Terrorism/Security related Crisis | : | Member Staff
Member Traffic
(Alternate) |
| (iii) | Natural Factor(s) related Crisis | : | Member Engineering
Member Traffic
(Alternate) |
| (iv) | Major Train Accidents | : | Member Traffic
Member Mechanical
(Alternate) |
| (v) | Crisis where railways have to
Help other ministries | : | Member Traffic
Member Staff
(Alternate) |

Names, telephone numbers and addresses of the Members/alternate members, who will represent the Ministry of Railways in NCMC are contained in Annexures

1.3 Crisis Management Group (CMG) :

The CMG is the Executive Authority responsible for dealing with the crises and shall work under the broad guidelines and directives issued by NCMC. It shall be in constant touch with the NCMC on the one hand and the concerned Zonal Management Group on the other. In addition to the concerned officers of the Railway Ministry, nodal officers from the concerned Ministries should be contacted (Annexure-12) if help is needed from the other ministries for effectively dealing with the various crisis situation; e.g. Ministry of Defence should be contacted for air support and/or expert help like divers, boats etc. However, Control Room of MHA should be kept informed of the developing situation for assistance as warranted. In case of difficulty in getting to the nodal officer of the concerned ministry, Control Room of MHA can be contacted telephonen os-23093054, 23093571, 23093563, 23093564, 23093566; F ax- 2 3093750, 23092398.

1.4 The overall composition of the Crisis Management Group including the names, telephone numbers and addresses of its members for dealing with various crisis situations are given in the Annexures as detailed below:-

Crisis situation		Convener/ Overall composition of The Central Management Group
(i)	All India Railway Strike	: Additional Member(Staff)
(ii)	Terrorism/Security related Crisis	: Director General (RPF)
(iii)	Natural Factor(s) related Crisis	: Additional Member(CE)
(iv)	Major Train Accidents	: Additional Member Traffic Advisor(Safety)
(v)	Crisis where railways have to Help other ministries	: Additional Member Traffic
1.5	The list/names of the Members of the CMG will be updated and circulated by the Safety Directorate of Railway Board every year.	
1.6	Members of the CMG will first assemble Emergency Control Room of Railway Board in Room No. 476 K (Telephone Nos. Railway 43399, 43599; P&T 23382638, which is located on the fourth floor of Railway Bhawan, at Raisina Road, New Delhi-110 001. Depending upon the type, gravity and duration of the crisis, the convener of the CMG will decide to operate either from the control room of the respective directorate or from the Railway Board Committee Room on the 2nd floor of Rail Bhawan.	
1.7	Zonal Management Group (ZMG)	
1.7.1	ZMG is same for all types of crisis. The Zonal Management Group (ZMG) shall be established at the Zonal Railway Headquarters and would comprise of the following Officers of the Zonal Railway Headquarters:	
(i)	Additional General Manager	: Convenor
(ii)	Principal Chief Engineer/ Chief Engineer (Coordination)	: Member/Alternate Convenor
(iii)	Chief Security Commissioner	: Member
(iv)	Chief Personnel Officer	: Member
(v)	Chief Operation Manager	: Member
(vi)	Chief Mechanical Engineer	: Member
(vii)	Chief Electrical Engineer	: Member
(viii)	Chief Signal & Telecommunication Engineer	: Member
(ix)	Chief Safety Officer	: Member
(x)	Chief Public Relations Officers	: Member

- 1.8 The Zonal Management Group will assemble in the Disaster management/Emergency Control Room of the Zonal Railway Headquarters and will keep in touch with CMG till the termination of the crisis.

INSTRUCTIONS FOR DEALING WITH CRISIS SITUATIONS

2.0 FLOW OF INFORMATION

- 2.1 On receipt of information of the crisis from the field unit, it should be immediately passed on to the concerned Divisional Railway Control Room, which in turn will immediately pass it on to the Emergency Control Room of the Zonal Railways Headquarters, and the Emergency Control Room of the Railway Board at Rail Bhawan.
- 2.2 Liaison Officer nominated at the Zonal Railway Headquarters will also immediately pass on the information to Disaster Management Control Room in Ministry of Home Affairs, North Block, New Delhi, which is operational round the clock.
- 2.3 The Divisional Railway Control Room will also simultaneously communicate the information regarding the crisis to the following:
- (i) All Branch Officers of the Division including Security for security related crisis.
 - (ii) District Magistrate concerned.
 - (iii) Distt. Supdt. Of Police concerned;
 - (iv) Chief Medical Supdt. (Railways), and to Distt. Civil Surgeon concerned.
 - (v) Chief Fire Officer of the District concerned.
- 2.4 The divisional control room will mobilize railway and non-railway resources to meet with the crisis situation locally as per the provisions of their accident manual, strike scheme and disaster management plan.
- 2.5 The Officer Incharge of the Emergency Control Room of the Zonal Railways Headquarters would immediately pass on this information to all Members of the Z.M.G who will assemble in the Emergency Control Room at their respective Railway. The convenor of the Z.M.G, besides passing on immediately the information regarding the crisis and the developments threat to Convenor of C.M.G either directly; or through the Central Control Office, will also pass on the same to the following and other concerned authorities:
- (i) Chief Secretary,
 - (ii) Director General of Police.
- 2.6 When a situation is of an extremely urgent nature, which does not permit adequate time to consult the CMG, the ZMG shall handle the situation in the best possible manner and as per the extant instructions laid down for dealing with the crisis situation. The ZMG will make all out efforts to mobilize needed resources by all possible means to manage the crisis as per the provisions of their accident manual, strike scheme and disaster management plan.
- 2.7 The Officer Incharge of the Safety Control Room at Room No. 476-K hi Rail Bhawan (P&T Phone No. 23382638 and Railway Phone No. 43399, 43599) which is manned round the clock would

immediately inform all the Members of CMG by the quickest possible means and give brief information about the nature of the crisis. The Convenor or his representative will convey information regarding the crisis situation to the Members of N.C.M.C.

- 2.8 The CMG will interact with NDM control room and officials of the other ministries to arrange for the support needed from them.
- 2.9 As soon as the report about the crisis is received, the convener of the CMG will decide to operate either from the control room of the respective directorate or from the Railway Board Committee Room on the 2nd floor of Rail Bhawan depending upon the type, gravity and duration of the crisis. The respective Control Room will be named as Emergency Control Room and its working will be upgraded in view of the crisis and will be manned round the clock under the charges of an Emergency Officer, not below the rank of Joint Director in each shift.
- 2.9.1 The main functions of such Emergency Control Room will be as under:-
- (a) To get situation reports on a continuous basis from the site:
 - (b) To keep all the concerned Officers of the various disciplines in the Railway Board as also in the concerned Ministries informed of the developments.
 - (c) To convey instructions and guidelines to the Officers In-charge of Relief Operations at site
 - (d) In case where Railways have to help and assist other Ministries in crisis situations, the emergency control office will maintain continuous liaison with the Nodal Ministry dealing with the crisis situation, and arrange assistance from the Railways as per the requirements and in coordination with the Nodal Ministry.
- 2.9.2 All the Control Rooms at Rail Bhawan will have the names and telephone Nos. of all the Members of the CMG to deal with the various crisis situations. On being informed about the development of the crisis situation by the Official Incharge of Emergency Control Room, the Joint Secretary, Railway Board, will make available adequate numbers of transport and Typists/ Stenographers for working in shifts, round the clock with the Emergency Control Room for efficient discharge of its functions.
- 2.9.10 In order to avoid any panic and also with a view to conveying correct information to members of public, the Z.M.G. and C.M.G will nominate senior officers of the Public Relations deptt. At all three places, i.e. the crisis area, the Z.M.G Hd.Qrs and CMG Hd.Qrs to coordinate the activities of Media and for issuing information bulletins at proper intervals.
- 2.10 CRISIS SPECIFIC ACTIONS
- 2.10.1 ALL INDIA RAILWAY STRIKE :
- 2.10.2 The composition of the Central Management Group to deal with the crisis situation is given at Annexure-6.
- 2.10.3 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.

2.10.4 The broad guidelines and general instructions of the strike scheme is to attain the following objectives:

- (a) To provide an emergency organization to operate the Railway under such conditions as and when a large section of the Railways employees may go on strike which may also be accompanied by sabotage, intimidation of loyal staff or even civil unrest.
- (b) To keep open in the event of a strike, Railway lines 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 to enable them to continue their work unmolested.

2.10.5 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 Magistrate and Superintendents of Police of the concerned districts and the Chief Secretaries and Directors General of Police of the concerned states. They will ensure that the provisions contained in the Strike Scheme booklet are read and understood by them so that the same can be implemented at the time of actual happening. Local SOPs will 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 signalling 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 deployment 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 specialized 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.

3.11 Terrorism/Security related Crisis

- 3.11.1 The composition of the CMG to deal with this crisis situation will be as per Annexure-7.
- 3.11.2 Crisis like explosions on the Railways, have 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 tune of Crisis.
- 3.11.3 Under these situations, the instructions contained in the Railway Accident Manual/disaster management plan would be applicable with suitable modifications as required by local circumstances. In these situations the GRP and Civil Police would play a more important role as they would be investigating the criminal case relating to sabotage/explosion, which would need a lot of assistance from the agencies would be done by the senior-most railway officer present at the site, he should specifically nominate a senior RPF officer to coordinate with the police agencies.
- 3.11.4 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 Railway as convener of CMG for this crisis.

3.12. 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 coordinate and liaison with railway authorities in warning of any imminent danger.

- III. Local police responsible for the maintenance of law and order in the region will have SOPs in place *in co-ordination* with all the other agencies like Railway Protection Force, Govt. Railway Police, locally deployed staff of the railway to guard vulnerable railway installations like major railway stations, trains, vulnerable locations, etc. It will act according to this SOP on receipt of intimation of any terrorist/security related crisis. It will take command of the situation and order the railway authorities at the site of the incident to facilitate then* operation. It will cordon off the affected area to facilitate the rescue, relief and restoration work.
- IV. Civil administration will alert government and private hospitals and rescue resources to reach the site to take care of the victims. Trauma centres, if any, in the region should be alerted to received the victims for their expeditious treatment.
- V. Local civil administration will organize surveillance of the terrorism prone area after the event to preclude another happening.
- VI. MHA will activate National Security Guards and help from other security related agencies to reach the site of crisis and take over from the local personnel for larger operation.
- VII. 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.
- VIII. Ministry of Health and Family Welfare is procuring a container based Mobile hospital. Once it is in position, it can be deployed for major disasters, if the situation so warrants.
- IX. Ministry of Defence will mobilize defence personnel to take over the crisis situation as per the need.

3.13 Natural factors Related Crisis

- 3.13.1 The composition of the CMG to deal with this crisis situation will be as per Annexure 8.
- 3.13.2 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.
- 3.13.3 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 endeavours and will organize to supplement their efforts under such crisis situation.
- 3.13.4 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.
- 3.13.5 Role of Other Ministries/Departments
 - I. Meteorology department will communicate the natural factors like cyclone, heavy rains, earthquake related information to the local railway administration to have them warned of any imminent crisis situation.

- II. SOP for transmission of the warning to the field units will be immediately activated to take appropriate preventive measures.
- III. On serious disruption of traffic on the railways, local agencies like public works department, irrigation department, local defence and para-military units will assist railways as per the request from the railway administration.
- IV. Local civil authorities and police will assist railways in ensuring security of passengers hi the stranded trains and at the stations. They will also assist hi 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-govt., agencies also e.g.divers, earthmoving equipment, etc.
- VI. Resources with all the agencies will be pooled 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 then: being warned of any imminent crisis situation.

3.13.6 Major Train Accidents

3.13.7 The composition of the CMG to deal with this crisis situation will be as per Annexure VIII.

3.13.8 On receipt of information of a Tram Accident involving/suspecting injuries or death of passengers, Accident Relief Medical Equipment Vans (ARMVs) and Accident Relief Trains (ARTs) which are stationed at strategic locations, are immediately turned out for the site of accident with Doctors, Paramedical Staff, rescue workers and Engineers.

3.13.9 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.

3.13.10 The Medical Team attends to the injured passengers and seriously wounded are transported to nearby hospitals.

3.13.11 The cost of such treatment is borne by the Railways. Dead bodies are handed over to Police for further action such as autopsy, for medico legal purposes.

3.13.12 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.

3.13.13 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.

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

3.3.15 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 crisis situation to help other Ministries is given at Annexure - 9.

3.3.16 The CMG will obtain directions from NCMC and organize the necessary relief operations through field level QRTs.

3.3.17 The concerned Ministry will make their own Contingency Plan bringing out the assistance required from the Railways, which will be mobilized.

4.0 Crowd Management for NCR (Integrated Security Scheme):-

An Integrated Security Scheme has been sanctioned for installation at 195 stations of Indian Railway. 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

Installation at 195 major stations is planned to be completed at the earliest.

4.1 Crowd Control and Management:-

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

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

4.2 Explosionintrainsandrailwaypr emises:-

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

MANAGEMENT OF BIOLOGICAL DISASTERS

Chapter-20

20.1 Causes of Biological Disasters:-

Biological Disasters might be caused by epidemics, accidental release of virulent microorganism (s) or Bioterrorism (BT) with the use of Biological agents such as anthrax, smallpox, etc. The existence of infectious diseases have been known among human communities and civilizations since the dawn of history.

In recent times travelling has become easier for which Railways have made a significant contribution. More and more people are travelling all over the world which exposes the whole world to epidemics. As our society is in a state of flux, novel pathogens emerge to pose challenges not only at the points of primary contact but in far removed locations. The Marburg virus illustrates this. The increased interaction between humans and animals has increased the possibilities of zoonotic diseases emerging in epidemic form.

20.2 Biological Warfare (BW) and Bio-Terrorism (BT):-

The historical association between military action and outbreaks of infections suggest a strategic role for biological agents. The advances in bacteriology, virology and immunology in the late 19th century and early 20th century enabled nations to develop biological weapons. The Biological and Toxin Weapons Convention, however, resolved to eliminate these weapons of mass destruction. Despite considerable enthusiasm, the convention has been a non-starter.

20.3 Mitigation:-

The essential protection against natural and artificial outbreaks of disease (bio-terrorism) will include the development of mechanisms for prompt detection of incipient outbreaks, isolation of the infected persons and the people they have been in contact with and mobilization of investigational and therapeutic counter measures. In the case of deliberately generated outbreaks (Bio-terrorism) the spectrum of possible pathogens is narrow, while natural outbreaks can have a wide range of pathogens. The mechanism required however, to face both can be similar if the service providers are adequately sensitized.

20.4 Nodal Ministry and support of other Ministries:-

The response to these challenges will be co-ordinated by the nodal Ministry-Ministry of Health and Family Welfare (MOH&FW) with inputs from the Ministry of Agriculture for agents affecting animals and crops, the support and input of other ministries like Ministry of Home Affairs, Ministry of Defences, Ministry of Railway and Ministry of labour and Employment, who have their own medical care infrastructure with capability of casualty evacuation and treatment, have an important role to play, with a proper surveillance mechanism and response system in place, epidemics can be detected at the beginning stage of their outbreak and controlled.

20.5 Handling CBRN Disaster - Training:-

For handling and to provide medical relief for all CBRN disaster which (include a Biological Disaster) and mitigation of BW and BT affected Railway staff, need to be incorporated in the Hospital DM Plan.

Training of a skeleton numbers of medical doctors in each divisional Railway Hospital to Manage CBRN casualties is to be Planned.

Chapter – 21.1

MANAGEMENT OF CHEMICAL DISASTERS

21.1 Guidelines by NDMA:-

National Disaster Management Authority (NDMA) has issued guidelines on the management of chemical disasters. These guidelines are directed more towards their prevention and mitigation of their effects, if these happen than on rescue and relief operations afterwards.

The main stakeholders in the management of chemical disasters are Ministry of Environment and forests (MoEF; the nodal ministry); Ministry of Home Affairs (MHA) Ministry of Labour and Employment (MoLE); Ministry of Agriculture (MoA); Ministry of Shipping, Road Transport and Highways (MoSRT & H); Ministry of Defence (MoD); Ministry of Chemicals and Fertilizers (MoC & F); Ministry of Petroleum and Natural Gas (MoP & NG). Department of Atomic Energy (DAE);

21.2 Salient features of NDMA Guidelines:

The growth of chemical industries has led to an increase in the risk of occurrence of incidents associated with hazardous chemicals (HAZCHEM). With their Proliferation, the demand on its transportation by rail has gone up significantly. Common causes for chemical accidents are deficiencies in safety management systems and human errors, or they may occur as a consequence of natural calamities or sabotage activities. Chemical accidents result in fire, explosion and/or toxic release. The nature of chemical agents and their concentration during exposure ultimately decides the toxicity and damaging effects on living organism in the form of symptoms and signs like irreversible pain, suffering, and death. Meteorological conditions such as wind speed, wind direction, height of inversion layer, stability class etc. also play an important role by affecting the dispersion pattern on toxic gas clouds. The Bhopal Gas tragedy of 1984 - the worst chemical disaster in history, where over 2000 people died due to the accidental release of the toxic gas methyl Isocyanate, is still fresh in our memories.

21.3 Genesis of NDMA's Guidelines on Chemical disasters:

Effective Chemical Disaster Management (CDM) is possible by the adoption of preventive and mitigation strategies as most chemical disaster are preventable in comparison to natural disasters that are difficult to predict and prevent.

In the NDMA's Guidelines comprehensive instructions for installations and storages (including isolated storages of HAZCHEM) that contain good engineering practices for safety, accident reporting, investigation and analysis checklists and safety promotional activities as important tools for effective CDM, are provided.

In the guidelines are instructions related to chemical accidents during transportation of HAZCHEM. The areas covered include:

- › Preparation of a highway DM plan.

- › Modification of rules pertaining to transport emergencies.
- › Specific roles and responsibilities of MAH units, transporters, drivers, authorities and aspects related to emergency communication systems and training of various stake holders.
- › The need for the development of an efficient pipeline management system.

The approach to implementation of the NDMA's Guidelines are highlighted along with the key points for ensuring the implementation of the plans prepared by the central ministries, departments and states.

21.4 Guidelines on Chemical Disasters:-

Railway's guidelines/instructions relevant to the zonal railway have been issued separately in detail for taking necessary action and incorporating suitable provisions in their respective DM Plans. These guidelines will add to the existing safeguards listed in the Red Tariff on handling, storage and transportation of hazardous material.

21.5 Railways Red Tariff - Transport of Hazchem :-

Indian Railway have also been transporting chemicals and hazardous materials e.g. Petroleum products (petrol, Naphtha, HSD etc.), Caustic soda, Alcohol, compressed gases (LPG gas etc.) Chemical manures, Acids, Matches etc. These goods are carried either in the SLRs or in the parcel Vans or in the goods wagons. Quantum and type of transportation of such hazardous material varies from railway to railway and different zonal railway need to prepare themselves based on the type and extent of hazardous material being handled and transported by them.

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. |

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

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

21.6 Monitoring Movement of Hazchem :

Dedicated communication system is to be established for Rail Transportation to monitor movement of Toxic Chemical Agents. A mechanism is to be developed like a Geographic Information system (GIS) for continuous monitoring of such transport vehicles along their route. This may require to be dove-tailed with the FOIS network of the Railways, one the TMS/FOIS is extended for booking (preparation of RRs) and movements of chemical items in wagons to be included in FOIS.

21.7 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 Organisations 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. 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.

21.8 Preventive Action the Rail Route of Movement of Hazchem

Divisions located on the "Hazchem Rail Transportation Highways" have to be in close touch with specialized services available with IOC/GAIL and Pvt. Chemical Factories and NGOs to be able to call upon their men and fire fighting fire extinguishers etc at short notices.

Vulnerability on this Highway needs to be reduced by the removal of Jhuggies from close to the track (say till at least 30 m away). This is essential as in the case of derailment of a naptha loaded (or even POL Tank Wagon etc) train, there is a high possibility of spillage of the dangerous products and its spread over a wide area. These products are highly prone to catch fire and even explode, resulting in fire in the jhuggies etc.

Chapter – 21.2

MANAGEMENT OF CHEMICAL (TERRORISM) DISASTERS

21.1 Introduction :-

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

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

21.2 NDMA's Guidelines :-

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

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

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

21.3 CTD Preparedness Plan :-

Implementation of the Guidelines at the national level shall begin with the preparation of a detailed

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

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

21.4 Preparedness for Emergency Response :-

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

21.5 Training for the Responders :-

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

21.6 Medical preparedness for CBRN :-

This is covered already in the chapter 9 (item 9.2) under the heading "Medical Preparedness MCE and Mobile Relief Arrangements".

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

Chapter - 22

MANAGEMENT OF NUCLEAR AND RADIOLOGICAL EMERGENCY (DISASTERS)

22.1 Nuclear/Radiological Emergency

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

After due consideration of the nature and consequences of the nature and consequences of all the possible scenarios, these radiological emergencies have been broadly classified in to the following five categories :

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

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

22.2 Vulnerability of Nuclear Facilities :

Identification of a Rail network close to a nuclear facility needs to be done by the zonal Railway.

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

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

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

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

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

Chapter - 23

MANAGEMENT OF RAIL DISASTER IN TUNNELS/DEEP CUTTINGS OR IN A WATER BODY

23.1 Expertise to handle Rail disaster in tunnels etc. :

The Railways have no expertise or infrastructure to handle a train disaster if it occurs in a tunnel or in a deep cutting not approachable by land. No machinery or earth moving equipment is available on the Indian Railways which would be mobilized for this job. Indian Railways is in the process of purchasing telescopic cranes for handling disasters in tunnels. Help of other stake holders or of NDRF has to be taken for this.

23.2 Ventilation arrangements in Tunnels:-

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

In case a train stalls in long tunnel due to derailment/fire or any unusual condition, automatically alarm will be sounded in the control room to alert the ventilation Operator/Controller or if Guard/Driver of a train or any other person gives such call on 'Emergency' Telephone the Ventilation operator should control the ventilation in tunnel as per the procedure given.

23.3 Lighting Systems in Tunnels for use in emergency :-

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

23.4 Rail Disaster in a lake, River, Sea etc. :-

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

Chapter - 24

MEASURES TO PREVENT ACCIDENTS

24. Measures to prevent accidents

24.1 Signalling

(a) Track Circuiting

Track Circuit is one of the most important safety aids provided at the stations, which has reduced collisions in station area. A major thrust was given to track circuiting at stations. In the last five years, on an average 1000 locations per year have been provided with track circuits and 98% of the stations on A, B & C routes and 94% of all BG routes have been covered so far. Plan to provide this device at all stations, mostly on Branch lines, is in place.

(b) Provision of Centralized Operation of Points and Signals by Electrical/Electronic Interlocking with MACLS is the most important system for safety, efficiency & flexibility in yard operation and for incremental line capacity and has been steadily provided on Indian Railway. Route Relay/Panel/ Electronic Interlocking (RRI/PI/EI) along with MACLS have been provided at 5317 stations (85% of total stations on BG route). Replacement of old outdated, multi-cabin mechanical signaling equipment are required to be replaced and upgraded by using electrical/electronic interlocking system in a phased manner.

(c) Elimination of Semaphore Signalling is necessary for improving visibility and efficiency of signaling system on these stations. There are 554 stations on IR network which are equipped with semaphore signaling. Out of these, 280 stations are on BG network. These stations are taking up for elimination of semaphore signaling by Colour Light Signaling with Centralized Panel Interlocking.

(d) Provision of isolation and Elimination of Rudimentary Interlocking and Upgradation of Standard Interlocking has assumed importance with growing traffics and speeds after a few serious accidents took place in recent years. Yard layouts and the corresponding signaling system at some station requires upgradation. Main line is not isolated for run through trains and complete track circuiting is not available resulting in imposition of speed restrictions in Yard and at times, an unsafe situation is created. Upgradation of standard of interlocking with provision of standard layout with isolation will be completed at the earliest.

(e) Token Ball Instruments

Token Ball Instruments are outdated equipment still in use on Indian Railway network. Token Ball Instrument available in NCR is 39 and planning is there to update into tokenless system. By December 2018 19(Nineteen) block system work of replacement of Token Ball Instrument with tokenless will be completed. Remaining 20 Block Sections work has been proposed in PWD 2018-19.

(f) Block Proving by Axle Counters

All new works of Panel Interlocking (PI) (EI) will be provided with Block proving by Axle counters device, to prevent collisions in the block sections due to some 'parted' load being left out. BPAC devices at existing PI/EI/RI stations are planned to be completed during XII plan.

(g) Centralized on-line Monitoring, Predictive Maintenance and Asset Management System with digital Mapping for every signaling installation to improve system availability besides providing event analysis tools.

24.1.2 Train Management System (TMS) is another area of technology upgradation for centralized Monitoring and Management of Train traffic already functional on Mumbai Suburban section of Western Railway and Central Railway.

24.1.3 Train Protection Warning System (TPWS)

To eliminate Signal Passing At Danger (SPAD), an human error, this system has been provided as pilot project on certain stretches of 275 Route Kilometers (RKMs). This work has sanctioned in following routes of North Central Railway.

1. Ghaziabad-Tundla (Technical bid opened on 07.06.17 and accepted on 03.10.17. Financial bid opened on 04.11.17 and under TC)
2. Tundla-Allahabad (Technical bid opened on 15.05.17 and under TC).
3. Kanpur-Allahabad (Technical bid opened on 21.06.17 and under TC).
4. Allahabad-Mughalsarai (Technical bid opened on 15.05.07 and under TC).
5. Agra-Gwalior ((Technical bid opened on 21.06.07 and under TC) Work had been completed 138 route Kilometer (Palwal-Agra) till November, 2011. Final Acceptance Certificate has been given on 19th January, 2018.

24.1.4 Train Collision Avoidance System (TCAS)

TCAS, a multivendor product is being developed indigenously by RDSO for collision Prevention as well as protection against Signal Passing At Danger (SPAD) by loco pilot. RDSO has finalized the specification of TCAS and proof of concept trials have been carried out during October/November, 2012. Extended trials on 250 Kms section on South Central Railway are to be conducted by RDSO. Based on successful conclusion of extended trials and Safety Certification of TCAS by Independent Safety Assessor (ISA), further deployment on Indian Railway will be considered.

24.1.5 Continuous Track Circuiting with Automatic Block Signaling

Continuous Track Circuiting not only helps in improving the capacity with automatic block signaling where more than one train can be sent in a block section but also improves safety by interlocking all level crossing gates on the section with signals. Since the Golden Quadrilaterals along with its diagonals on the IR carry the maximum traffic, it is proposed to provide continuous track circuiting on priority on these section.

24.1.6 Mobile Train Radio Communication

Mobile Train Radio Communication (MTRC) system has an intrinsic potential in enhancing the safety and security in train operations, besides being a valuable aid in providing reliable and secure communication to all those engaged in different facets of railway operations and maintenance functions. MTRC works have already been commissioned on 2461 RKms on IR and are in progress on 2100 RKms.

24.2 Engineering

24.2.1 Rail/Weld Fractures

Rail/Weld Fractures have direct impact on safety, following are proposed to reduce the incidences of Rail/Weld fractures.

(a) Improvement of quality of rails

Increasing fracture Toughness, ductility, weldability and corrosion resistant properties of rails helps in reducing sudden failures of rails. This will need addition of alloying material in various proportions, Study in this direction is in progress in collaboration with SAIL.

Increased Axle Load has necessitated production of Head Hardened Rails and Rails with Higher UTS (110 UTS). Studies are in progress in association with SAIL to develop such rails for use on heavy axle load routes. It is expected that such Rails will be available indigenously by 2016.

At present, Bhilai Steel Plant of SAIL is producing 65 m long rails which are being welded in Bhilai Steel Plant to make a rail panel of length 260 m. These long rail panels are being directly transported to the site thereby reducing the number of welds and the multiple handling of rails there by improving the quality. Bhilai Steel Plant of SAIL is installing a new rail rolling mill at Bhilai using state of the art technology. In this new mill 130m length rails will be rolled and with a single weld 260 m rail panel will be prepared and it is expected that new rail rolling mill will be commissioned by SAIL in 2018-19.

(b) USFD Testing of Rails

To make USFD more reliable, improvement in USFD technique is necessary. The Railways have introduced need-based concept of USFD testing of rails, under which the rails already laid in track are being tested after the passage of stipulated GMT of traffic. The improvement in quality of testing is also planned by use of digital type ultrasonic Flaw Testing machines replacing existing analogue type Ultrasonic Flaw Testing machines. Digital Testing Machines for USFD testing of rails and welds are capable of data logging, saving and transferring scan to computers while this facility is not available in analogue type of machines.

(c) Improved Thermit Welding -

There is a scope of improvement in Thermit welding techniques being used at present. Based on studies done, Significant improvement has been made in welding techniques to reduce dependence on human judgement. The use of Compressed air heating, three piece moulds and automatic Tapping thimbles have been made mandatory for welding on Broad gauge track.

(d) Reduction in thermit welds by mobile flash butt welding -

Alumino-Thermit (AT) welds are the weak links in track, whose population is being gradually reduced and replaced by Flash Butt (FB) welds. As a first step flash butt welding has been introduced in all construction projects. This is to be gradually extended to other areas.

24.2.2 Rail Fracture Detection System

Rail/Weld failures are potential safety hazards. Advanced Railway systems are using the systems, which alerts all concerned in case of failures and train operations are controlled to prevent consequential train accidents. No such system is available of IR. Suitable technology will be developed in association with advanced railway systems for use on IR. It is proposed to install Broken rail detection system on NR & NCR on trial basis. After successful trial, this system will be progressively installed on other important routes.

24.2.3 Action Plan for Road Users' safety

To reduce accidents at manned and unmanned level crossing gates, IR will adopt following multi-pronged strategy:-

- › Existing task force of the Ministry of Railways and State Governments for construction of ROBs/RUBs would be made more effective.
- › Items to be resolved between the Ministry of Railways and Ministry of Road Transport and Highways.
- › Speed breakers at level crossings, their standards and maintenance.
- › Testing of driving license applicant with regard to thorough knowledge pertaining to level crossings.
- › Widening of roads at selected high density locations to ease movement.
- › Training and counseling of road users.
- › Lifting barriers with retro-reflective markers in lieu of gate leaves shall be provided on double and multiple lines.
- › On manned level crossing, with more than 500 road vehicles per day and where possible, the road width shall be widened in railway land.
- › Signalling Systems like Interlocking arrangements and provision of telephones at LC gates enhances safety considerably.
- › Of 18672 Manned Level Crossings, 10513 are already interlocked and provided with signals as on 31.03.2015. It is envisaged that another 1320 gates would get interlocked in next 5 years.
- › Inclusion of Dos and Don'ts near level crossings in primary school curriculum.
- › Intensive social awareness campaigns to counter misadventure in front of approaching trains.
- › Basic infrastructure on all unmanned level crossings will be ensured and it includes provision

of adequate width, normal gradient, level surface for 5 m from centre of the nearest track, Whistle Boards in retro-reflective sheets, specified Road Warning Boards, road surface in good condition and speed breakers/rumble strips etc.

- › All level crossings, as per revised criteria for manning, falling in the three specified categories, are proposed to be manned in next 5 years.
- › Periodic census of level crossings will be carried out by multi-disciplinary teams.
- › Compulsory whistling by train drivers by linking loco whistle to the vigilances control device (VCD).
- › On sections where there are a number of unmanned level crossings, at close proximity, RUBs may be constructed at a convenient location and the remaining level crossings closed.
- › Checking visibility levels at all unmanned level crossings, and taking corrective action for their improvement.
- › Appropriate approach road gradients within railway boundary to be ensured.

25.18 Provision of Road Over/Under Bridge

It has been decided to provide Road Over/Under Bridges in replacement of all level crossings on cost sharing basis where the TVUs (number of trains x number of road vehicles in 24 hours) exceed one lakh. There are 417 level crossings where the TVUs are more than one lakh and have already been sanctioned as on 1.4.2003, for replacement with ROB/RUBs. There are still 1252 level crossings with TVUs of more than one lakh as on 1.4.2003 where the ROB/RUBs are yet to be sanctioned. These will be sanctioned progressively depending upon the response of the State Governments for sharing of the cost and their sponsoring them for the same.

24.3 Mechanical

22.2.3 Wheel Impact load Detector (WILD)

WILD is used to manage the wheel impact load spectrum for targeted removals of defective wheels from service. The WILD continually monitors locomotives and vehicle wheels health to ensure safe train operations.

Object of WILD:

- To protect Rail Infrastructure, avoid derailments & Accidents
- To reduce service failures and unplanned maintenances cost of rolling stocks and tracks.

Wheel Impact Load Detector is used to catch the defects in the early accidents. Three WILD system is planned to install over NCR. One WILD system has been installed at DER on Dn line in Allahabad division and functioning since 24.12.2017, second one is proposed for Bhaupur station of Allahabad division and third one to be installed between Hodal-Sholaka station of Agra division.

WILD is used to manage the wheel impact load spectra for targeted removals of defective wheel from service. The WILD continually monitors the health wheels of locomotives and vehicles to ensure safe train operations. In WILD system, if any wheel generates a wheel for action. A maintenance alarm identifies vehicle for preventive maintenance at the next available opportunity and a critical alarm directs a train to stop as quickly and safely as possible.

24.3.2 On Line Monitoring of Rolling Stock System (OMRS)

On-line monitoring of rolling stock system is a way side rolling stock inspection system that enables maintenance and operation personnel to monitor the condition of wheel and wheel bearings in real time when the train runs past such wayside equipment installation.

OMRS is a predictive maintenance system and consists of two subsystem - Acoustic Bearing Detector (ABD) and wheel Impact Load Detector (WILD). OMRS captures and monitors the bearing noise signature and wheel impact load signatures and trends the same to monitor and predict the onset of degradation in bearing and wheel so that they can be taken off from running service before they fail

catastrophically. Planning of 04 OMRS is to be installed over NCR, one is to be installed in Up direction near Sarsaul station of Allahabad division and nest one Dn direction between Rura-Maitha Station Subsequently 02 OMRS is to be installed in both (Up & Dn) direction between Hodal-Sholaka station of Agra division.

24.3.3 Hot box detector

One Hot box detector system installed at Chunar station of Allahabad Division, N.C. Railway proposed for 9 Hot box Detectors is in pipe line on Allahabad division.

Hot axle is a major cause of en-route detention, unscheduled detachment of vehicles and cause of en-route detention, unscheduled attachment of freight and coaching trains have reduced with better maintenance and technological up-gradation however present rate of hot axle os also required to be contained for better mobility and improved safety.

In present manual system which is dependent on visual observation by train passing staff, measurement of temperature at rolling in points, are basically breakdown and damage control maintenance where hot axle is detected when temperature and other parameters have already crossed specified limits.

In a paradigm shift Allahabad division, N.C. Railway has taken a step from present breakdown maintenance strategy to predictive maintenance strategy w.r.t. hot axle. First hot box detector of its kind on 1R has been installed at MGS-ALD section up line at chunar station. This axle detector equipped with high accuracy infrared temperature sensors will be able to predict very early temperature rise of bearing so as to give enough time for planned checking and detachment of vehicle if necessary. This will reduce section blockage cases & obviate possibility of axle breakage due to hot axle. Some salient features of Hot box detectors that has been installed in Allahabad division are as under:-

- Automatic identification of Hot Axle Box, Hot Wheel & normal Wheel
- Detailed report with axle box and wheel temperature at two sides of an axle for complete train.
- Automatic identification of rake formation of train.
- automatic Transfer of report & analysis to railway control office through GPRS/Existing OFC Line.
- Identification of train type, No. of engines. wagons/coach,brake vans.
- Audio Visual Alarm for given alarm condition.
- Web Interface.

24.3.4 Better and Safer Coaches

Design of lightweight, stainless steel passenger coaches has been procured through a Transfer of Technology (TOT) contract from M/s LHB of Germany. The coach provides better ride index at higher speeds. The design provides a higher safety level as a result of modern technology in use in the design of high-speed bogies.

In view of enhanced safety features, passenger comfort and higher speed potential, it is proposed to completely switch over to light weight stainless steel LHB mainline coach production.

24.3.5 Retrofitment of Crash Worthy Features Such as Crash Buffer and Anti-Climbing Modifications in Conventional Coaches.

To minimize injury to passengers in case of collision, conventional coaches are to be provided with crash buffers provided at the coach ends which absorb collision energy minimizing damage to passenger area. Provision of anti-climbing modifications in coaches will not allow the coaches to climb over each other in case of an impact.

24.3.6 Fire detection and suppression system in AC coaches

To make AC coaches fire resistant, fire detection and suppression system is to be provided to detect fire in AC coaches and take preventive action. Provision of automatic braking of coaches in case of fire shall also be provided.

24.3.7 Fire detection and suppression in NAC coaches

To make NAC coaches for fire resistant, fire detection and suppression system is to be provided to detect fire in NAC coaches and take preventive action.

24.3.8 Automatic door closure mechanism in coaches

Automatic door closure mechanism in EMU coaches to prevent accidental falling off of passengers from trains should be introduced in suburban trains. Automatic AC Component doors will manual trigger shall be provided in newly manufactured LHB AC double-decker coaches for convenience of elderly passengers and children.

24.3.9 Redesigning/refurbishing of interior of coaches and interior fittings for better occupant safety

Coaches shall be provided with fire retardant materials such as fire retardant curtains & partition panelling, roof ceiling, PVC flooring, cushioning material for seats and berths, Rexine & fabric upholstery for seats and berths, FRP windows & U1C Vestibules, etc. in the interior furnishing. Specifications of these fire retardant materials shall be upgraded as a part of continual improvement in passenger safety.

Coaches are being provided with fire retardant furnishing materials. To minimize injuries during rail travel, coaches are being redesigned without any sharp corners in the interior and dully padding up vulnerable areas.

Improved design climbing arrangements and better side lower berths in sleeper coaches passengers for easy climbing on upper berths especially for elderly, women, children and disabled.

Manufacturing of Variant AC and non-AC coaches with new design is being planned with provision of emergency exit door in addition to emergency exit window for faster evacuation of passengers, fire safety measures such as fire barrier coating, luminescent signages for visibility in the dark, emergency alarm, interface with air brake system for automatic brake application.

24.3.10 In-motion Weighbridges

The in-motion weighbridge helps detect overloading in wagons. This reduces fatigue of rail/welds and, therefore, reduces chances of fracture, installation of in-motion weigh bridges is done as and when required as per changes in traffic pattern and emergent requirements and is a continuous process.

24.3.11 Curbing fire hazards in pantry car

- > With a view to curb fire hazards in pantry car, Board has issued guidelines for upkeep of pantry car equipment to ensure that all equipment and gadgets are in working order and in safe condition.
- > Electrical gadgets in Pantry Cars should be operated only by the authorized electrical staff, nobody else.
- > Zonal Railways have been advised to remove the cardboard cartons after loading the food articles and they are to be kept in containers made up of fire retardant materials such as insulated metallic boxes.

Separate reservation chart of pantry car should be published like reservation chart of other coaches. Ticket checking staff should permit only those persons in pantry car & Power car (Railway Staff and Pantry car Staff) whose names are appearing in reservation chart of pantry car and Power car and having valid travel authority.

