



पश्चिम मध्य रेल WEST CENTRAL RAILWAY



9 वां संस्करण आपदा प्रबंधन योजना ZONAL DISASTER MANAGEMENT PLAN PART-I



KEEP THIS END UP

SUITABLE FOR
CLASS OF FIRE



TYPE 'B' FOR
USE ON PETROL,
OIL, PAINTS, SPIRIT,
CHEMICALS ETC.
पेट्रोल, पेंट, स्पिरिट व
तेल की आग के लिए



TYPE 'C' FOR
USE ON COOKING
& WELDING GAS,
ELECTRICAL FIRE ETC.
उत्पलनशील गैस व गैस और
विजली की आग के लिए

AFTER USE
CONTACT YOUR
SUPPLIER
FOR RECHARGING

DRY POWER FIRE EXTINGUISHER

(बी., सी., सूखा पाउडर वाले अग्निशामक यंत्र)

HOW TO OPERATE प्रयोग करने का तरीका

1) अग्निशामक यंत्र को सीधा पकड़े
और सेफ्टी क्लिप हटाएँ।



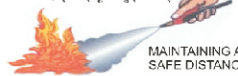
KEEP EXTINGUISHER
UPRIGHT & REMOVE
SAFETY CLIP

2) नॉब पर जोर से प्रहार कीजिए।



STRIKE THE KNOB OF
PIERCING MECHANISM
WITH PALM OF HAND

3) प्रशिक्षण पूरी करवाए रखें।
आग की सतह पर पाउडर को
बाएँ-दाएँ घुमाते हुए फेंकिए।



MAINTAINING A
SAFE DISTANCE
DIRECT THE JET AND DISCHARGE AT
THE BASE OF FLAMES WITH A RAPID
SWEEPING MOTION

AFTER USE :

1) UNSCREW CAP AND REMOVE THE
CARTRIDGE 2) REMOVE DISCHARGE FITTINGS
FROM THE EXTINGUISHER 3) CLEAN THE
BODY DISCHARGE FITTINGS, NOZZLE ETC.
4) NOW THE EXTINGUISHER IS READY FOR
RECHARGING 5) ASSEMBLE THE CAP
CARTRIDGE AND HOSE WITH EXTINGUISHER

MAINTENANCE :

INSPECT QUARTERLY, CLEAN DISCHARGE FITTING, NOZZLE, OPEN CAP ETC. REMOVE
CARTRIDGE AND WEIGH. IF WEIGHT IS FOUND 10% LESS THAN THE STAMPED WEIGHT
REPLACE IT WITH A NEW CARTRIDGE. SEND USED CARTRIDGE FOR REFILLING AND ALSO
CHECK THAT THE WASHER IN THE CAP IS SOFT AND INACT POUR OUT THE POWDER AND
CHECK TO ENSURE THAT NO GRANULATION OR CAKING HAS OCCURRED. CHANGE POWDER IF
GRANULATION OR CAKING HAS OCCURRED.

Tested to a pressure 30 Kgf/Cm²

TO RECHARGE :

• RECHARGE WITH ABOVE CAPACITY
OF OUR DRY POWDER • ENSURE THAT
THE SAFETY CLIP IS IN POSITION ON
CAP • REMOVE CARTRIDGE & SCREW
ON A CHARGED ONE • INSERT INNER
CONTAINER AND SCREW ON CAP AIR
TIGHT • SCREW ON DISCHARGE
FITTINGS AIR TIGHT

CAPACITY KGS. CAPACITY OF CO₂ GAS Gms.
CARTRIDGE USED
BATCH NO. SERIAL NO. YEAR OF MFG.

CAUTION :

DO NOT USE WATER TO CLEAN THE FIRE EXTINGUISHER

R.J. Technology & Trading Company

An ISO:9001:2015 Certified Company
Reg. Add. : H.No.3661/E, O.F.K. Road, Karond, Ranchi, Jharkhand - 834005, M.P., India
Contact: +91 9752235154, 9584326515

FIRE EXTINGUISHER DRY CHEMICAL POWDER

STORED PRESSURE TYPE

(ए.बी. सी., सूखा पाउडर वाले अग्निशामक यंत्र)

CLASS OF FIRE



TYPE 'A' FOR USE ON
PAPER, WOOD, CLOTH,
PLASTIC ETC.
पकड़ी, कागज वगैरे वस्तु
आग के लिए



TYPE 'B' FOR USE ON
PETROL, OIL, PAINTS
SPIRIT, CHEMICALS ETC.
पेट्रोल, पेंट, स्पिरिट, तेल
की आग के लिए



TYPE 'C' FOR USE ON
FLAMMABLE GAS, LPG GAS,
ELECTRICALLY STARTED FIRES
उत्पलनशील गैस
और विजली की आग के लिए

FIRE

HOW TO OPERATE



1) HOLD THE EXTINGUISHER UPRIGHT
2) REMOVE SEAL AND PULL SAFETY PIN.
3) DETACH DISCHARGE HOSE AND AIM AT THE BASE OF FIRE.
4) SQUEEZE LEVER AND DIRECT THE JET TOWARDS THE NEAR EDGE
OF THE FIRE WITH A RAPID SWEEPING MOTION. DRIVE THE FIRE
TOWARDS THE FAR EDGE UNTIL FLAMES ARE EXTINGUISHED.

प्रयोग का तरीका

उपयोगिता के लिए सुनिश्चित करें कि ठोस मापक पर सुई हरे रंग के क्षेत्र में हो।
आग बुझाने अग्निशामक यंत्र को सीधे पकड़े, सुरक्षा मोल को हटा दें और निम खींचें।
आग बुझाने वाली नली आगन करें और आग के आधार पर लक्ष्य रखें।
लीवर दबाएँ और आग की सतह पाउडर छिड़कें।

RECHARGE AFTER EVERY USE
SEND FOR REFILLING AFTER EVERY USE
CARE AND MAINTENANCE

- CHECK PRESSURE GAUGE PERIODICALLY. MAX. CHARGING PRESSURE IS 1500/CM². IF PRESSURE DROPS NEEDLE WILL SHIFT INTO THE RED
- DO NOT USE WATER FOR CLEARING.
- DO NOT RELY ON PARTIALLY USED OR DISCHARGED EXTINGUISHER.
- TESTED TO 35 KG/CM² BURSTING PRESSURE 55 KG/CM² (MIN.)
- MAX CHARGING PRESSURE IS 55 KG/CM²
- SPECIFICATIONS-4S:15683
- FOR SATISFACTORY PERFORMANCE MAINTAIN EXTINGUISHERS AS PER IS:2190.
- SUITABLE TEMPERATURE:-20° C TO 55° C

Contains ABC DRY POWDER Capacity Kg.

R.J. Technology & Trading Company

An ISO:9001:2015 Certified Company
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KEEP
THIS
END
UP



Intra Railway SAG Safety Audit of KOTA-SWM Section on 28.10.2021



Intra Railway SAG Level Safety Audit of STA-MKP Section on 25.11.2021



Intra Railway SAG Safety Audit of ET-KNW Section of BPL Division on 02.12.2021



**Joint Disaster Management Exercise with NDRF at Gurla Station
of Kota Division on 16.09.2021**



**Joint Disaster Management Exercise with NDRF at Gosalpur Station
of Jabalpur Division on 22.10.2021**

First Edition	:	2004
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Third Edition	:	2010
Fourth Edition	:	2011
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Seventh Edition	:	2014
Eighth Edition	:	2015
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SAFETY BRANCH OF WEST CENTRAL RAILWAY HAS TAKEN DUE CARE IN UPDATING VARIOUS CONTENTS OF THIS BOOK INCLUDING DESIGNATION OF OFFICIALS DEALING WITH DISASTER MANAGEMENT. RAIL-ROAD MAPS OF THE DIVISION HAVE BEEN MODIFIED AND INCORPORATED.

TIME-TO-TIME REVIEW AND UPDATING OF CONTACT NUMBER IS NEEDED FOR EFFECTIVE UTILIZATION DURING ACCIDENT/DISASTER, AS AND WHEN REQUIRED.

THE PUBLISHER SOLICITS INFORMATION ON ERRORS, IF ANY.





पश्चिम मध्य रेल
West Central Railway

सुधीर कुमार गुप्ता
महाप्रबंधक

Sudhir Kumar Gupta
General Manager



प्राक्कथन

मुझे यह जानकारी प्रसन्नता हो रही है कि पश्चिम मध्य रेल के संरक्षा विभाग द्वारा क्षेत्रीय आपदा प्रबंधन योजना के भाग-1 का 9वां संस्करण प्रकाशित किया जा रहा है। इससे पूर्व 8वें संस्करण का प्रकाशन 2015 में किया गया था। इस भाग में ड्यूटी लिस्ट, विभिन्न विभागों की भूमिका एवं जिम्मेदारी तथा एन.डी.एम.ए. एवं रेलवे बोर्ड द्वारा आपदा प्रबंधन हेतु जारी दिशा निर्देशों का समावेश किया जाता है।

पूर्व में आपदा प्रबंधन योजना अपने प्रारंभिक रूप में जरूरत के अनुसार तुरंत कार्यवाही और राहत पहुँचाने तक ही केन्द्रित थी। अब राष्ट्रीय स्तर पर तत्कालीन तुरंत कार्यवाही पर केन्द्रित आपदा प्रबंधन में पिछले उदाहरणों को देखते हुए बड़ा बदलाव आया है तथा उसमें आपदाओं को रोकने, उनका प्रभाव कम करने और कार्य-तत्परता पर बल देते हुए आपदाओं के प्रबंधन को एक संपूर्ण और एकीकृत प्रबंधन बनाया गया है। मूलतः आपदा एक ऐसी स्थिति होती है जिसका मुकाबला करना रेलवे की क्षमता से बाहर होता है तथा बड़े पैमाने पर दूसरी एजेंसियों को भी सहायता की आवश्यकता होती है।

इस योजना से किसी भी दुर्घटना अथवा विपत्ति के समय जो रेलवे में घटित होती है उससे मुकाबला करने की एक व्यवस्थित रूप-रेखा हासिल होती है जिससे राज्य प्रशासन के संसाधनों, राष्ट्रीय आपदा अनुक्रिया बल एवं अन्य एजेंसियों की व्यवस्था एवं तैनाती सुनिश्चित की जा सकती है।

मुझे पूरा विश्वास है कि अधिकारी और कर्मचारी इस योजना में दी गई जानकारी और मार्गदर्शी सिद्धांतों का लाभ उठाएंगे जिससे वे रेलवे पर घटित होने वाली सभी प्रकार की आपदाओं का सही और कारगर तरीके से कुशलतापूर्वक मुकाबला कर सकेंगे।

(सुधीर कुमार गुप्ता)

29 दिसम्बर 2021





पश्चिम मध्य रेल
West Central Railway

एस.पी. माही
प्रमुख मुख्य संरक्षा अधिकारी
S.P. Mahi
Principal Chief Safety Officer



प्रस्तावना

भारत सरकार द्वारा आपदा प्रबंधन अधिनियम, 2005 लागू किए जाने के बाद केवल राहत पहुँचाने पर केन्द्रित आपदा प्रबंधन में पिछली घटनाओं को देखते हुए बड़े बदलाव कर इसे एक व्यापक, पूर्व सक्रिय आपदा जोखिम में कमी लाने वाला, सूझ-बूझपूर्ण तैयारी, किसी आपदा से समय पर कारगर तरीके से निपटने वाला प्रबंधन बनाया गया है।

आपदा प्रबंधन योजना के भाग-I का यह 9वां संस्करण प्रकाशित किया जा रहा है। इससे पूर्व 8वां संस्करण वर्ष 2015 में प्रकाशित किया गया था। इस संस्करण में प्रधानमंत्री जी के आपदा जोखिम में कमी लाने के 10 सूत्रीय कार्यक्रम, चलती गाड़ियों में आग बुझाने के लिए मानक परिचालन प्रक्रिया एवं राष्ट्रीय आपदा प्रबंधन प्राधिकरण द्वारा कोविड-19 वैश्विक महामारी आदि के बारे में जारी संबंधित मार्गदर्शी सिद्धांतों को समाहित किया गया है। जिससे सर्व संबंधित को आवश्यक जानकारी एवं सावधानी रखने हेतु अवगत कराया जा सके।

उपयोगकर्ताओं द्वारा सुझाव तथा इस प्रकाशन में यदि कहीं कोई कमियाँ हों तो उन्हें पश्चिम मध्य रेल की वेबसाइट www.wcr.indianrailway.gov.in पर सूचित किया जाए जिससे उन्हें अगले संस्करण में समाहित किया जा सके।

29 दिसम्बर 2021


(सुरेन्द्र पाल माही)



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ABBREVIATIONS USED

ADEE	-	Assistant Divisional Electrical Engineer
ADEN	-	Assistant Divisional Engineer
ADG	-	Additional Director General
ADMO	-	Assistant Divisional Medical Officer
ADRM	-	Additional Divisional Railway Manager
ADME	-	Assistant Divisional Mechanical Engineer
AGM	-	Additional General Manager
ARME	-	Accident Relief Medical Equipment
ART	-	Accident Relief Train
ADSTE	-	Assistant Divisional Signal & Telecomm.
AGM	-	Additional General Manager
BSF	-	Engineer Border Security Force
BSNL	-	Bharat Sanchar Nigam Limited
C&W	-	Carriage and Wagon
CBE	-	Chief Bridge Engineer
CBRN	-	Chemical, Biological, Radiological and Nuclear
CCR	-	Carriage Controller
CCRS	-	Chief Commissioner of Railway Safety
CISF	-	Central Industrial Security Force
CFTM	-	Chief Freight Transportation Manager
CTNL/CHC	-	Chief Controller
CLI	-	Chief Loco Inspector
CMI	-	Commercial Inspector
CMS	-	Chief Medical Superintendent
CMPE(Diesel)	-	Chief Motive Power Engineer (Diesel)
CPRO	-	Chief Public Relations Officer
CPTM	-	Chief Passenger Transportation Manager
CRPF	-	Central Reserve Police Force
CRS	-	Commissioner of Railway Safety
CRSE	-	Chief Rolling Stock Engineer
CSE	-	Chief Signal Engineer
CTE	-	Chief Track Engineer
CWI	-	Carriage & Wagon Inspector
DCM	-	Divisional Commercial Manager
DCWI	-	Divisional Carriage & Wagon Inspector
DDMA	-	District Disaster Management Authority
DEE	-	Divisional Electrical Engineer
DEN	-	Divisional Engineer
DFM	-	Divisional Finance Manager
DG	-	Director General
DM	-	Disaster Management



DME	-	Divisional Mechanical Engineer
DMO	-	Divisional Medical Officer
DMT	-	Disaster Manager Team
DOM	-	Divisional Operations Manager
DPO	-	Divisional Personnel Officer
DRM	-	Divisional Railway Manager
DSC	-	Divisional Security Commissioner
DSO	-	Divisional Safety Officer
DSTE	-	Divisional Signal & Telecommunication Engineer
Dy.CCM	-	Deputy Chief Commercial Manager
Dy.COM	-	Deputy Chief Operations Manager
Dy.TNL/CHC	-	Deputy Controller
EMR	-	Emergency Medical Response
Engg.	-	Engineering
ERC	-	Emergency Response Centre
ESIC	-	Employees State Insurance Corporation
ETL	-	Emergency Train Lighting
EWS	-	Early Warning System
FOIS	-	Freight Operation Information System
FR	-	First Responders
G&SR	-	General & Subsidiary Rule
GM	-	General Manager
GRP	-	Govt. Railway Police
HOD	-	Head of Department
HPC	-	Hindustan Petroleum Corporation
HRD	-	Hydraulic Rescue Device
HRE	-	Hydraulic Rerailing Equipment
HSD	-	High Speed Diesel
IAF	-	Indian Air Force
IAN	-	Integrated Ambulance Network
ICS	-	Incident Command System
IAT	-	Instant Action Team
IDSP	-	Integrated Disease Surveillance Programme
IG	-	Inspector General of Police
IOC	-	Indian Oil Corporation
IR	-	Indian Railways
IRCM	-	Indian Railway Commercial Manual
IRMM	-	Indian Railway Medical Manual
ISD	-	International Subscriber Dialling
ITBP	-	Indo Tibetan Border Police
JA	-	Junior Administrative



JCB	-	Jack-cum-Bulldozer
LC	-	Level Crossing
LPG	-	Liquefied Petroleum Gas
MCE	-	Mass Casualty Evacuation
MCM	-	Mass Casualty Management
MFR	-	Medical First Responder
MHA	-	Ministry of Home Affairs
MOR	-	Ministry of Railways
MOSR	-	Minister of State for Railways
NCDC	-	National Centre for Disease Control
NDMA	-	National Disaster Management Authority
NDRF	-	National Disaster Response Force
NGO	-	Non-Govt. Organization
NSS	-	National Service Scheme
OC	-	Officer-in-Charge
OHE	-	Over Head Equipment
PA	-	Public Address
PCE	-	Principal Chief Engineer
PCCM	-	Principal Chief Commercial Manager
PCEE	-	Principal Chief Electrical Engineer
PCMD	-	Principal Chief Medical Director
PCME	-	Principal Chief Mechanical Engineer
PCOM	-	Principal Chief Operations Manager
PCMM	-	Principal Chief Material Manager
PCPO	-	Principal Chief Personnel Officer
PCSC	-	Principal Chief Security Officer
PCSO	-	Principal Chief Safety Officer
PCSTE	-	Principal Chief Signal & Tel. Engineer
PCO	-	Public Call Office
PHOD	-	Principal Head of Department
POMKA	-	Portable Medical Kit of Accidents
POL	-	Petroleum & Oil
PPE	-	Personal Protective Equipment
PR	-	Public Relations
PCOR	-	Power Controller
PRO	-	Public Relations Officer
PWI	-	Permanent Way Inspector
QMRTS	-	Quick Medical Reaction Teams
RCT	-	Railway Claims Tribunal
RMS	-	Railway Mail Service
RPF	-	Railway Protection Force
S&T	-	Signal & Telecommunication
SDGM	-	Senior Deputy General manager

SDMA	-	State Disaster Management Authority
SDRF	-	State Disaster Response Force
SHO	-	Station Head Officer
SI	-	Signal Inspector
SIMS	-	Safety Information Management System
SLR	-	Second Class-cum-Luggage-cum-Brake Van coach
SM	-	Station Manager
SOP	-	Standard Operative Procedure
SP	-	Superintendent of Police
SPARMV	-	Self Propelled Accident Relief Medical Van
SPART	-	Self-Propelled Accident Relief Train
Sr.DFM	-	Senior Divisional Finance Manager
Sr.DCM	-	Senior Divisional Commercial Manager
Sr.DEE	-	Senior Divisional Electrical Engineer
Sr.DME	-	Senior Divisional Mechanical Engineer
Sr.DMO	-	Senior Divisional Medical Officer
Sr.DOM	-	Senior Divisional Operations Manager
Sr.DPO	-	Senior Divisional Personnel Officer
Sr.DSC	-	Senior Divisional Security Commissioner
Sr.DSO	-	Senior Divisional Safety Officer
Sr.DSTE	-	Senior Divisional Signal & Telecommunication Engineer
Sr.EDPM	-	Senior Electronic Data Processing Manager
SSE	-	Senior Section Engineer
STD	-	Subscriber Trunk Dialling
St.JAB	-	St.John Ambulance Brigade
STM	-	Senior Transportation Manager
SS	-	Station Superintendent
TC	-	Ticket Collector
TCM	-	Telecommunication Maintainer
TCI	-	Telecommunication Inspector
TI	-	Traffic Inspector
TPC	-	Traction Power Controller
TRD	-	Traction Distribution
TS	-	Train Superintendent
TTE	-	Travelling Ticket Examiner
TXR	-	Train Examiner
VHF	-	Very High Frequency
VPU	-	Vehicle Parcel Van
WCR	-	West Central Railway
WI	-	Welfare Inspector
WLL	-	Wireless on Local loop



Chapter - 1



CHAPTER - 1

DISASTER MANAGEMENT PLAN AND ACT 2005

1.0 Disaster Management on Indian Railways deals with the following elements :

1. Prevention and Mitigation.
2. Preparedness for Quick relief.
3. Rescue and restoration.

The Indian Railway Corporate Safety Plan, Zonal Safety Action Plan and Divisional Safety Action Plan envisage Disaster Prevention and Mitigation directed towards continuous reduction in risk level to its customers.

The following measures have been suggested to reduce the number of various types of accidents and to enhance safety over Indian Railways.

1. Construction of ROB's/RUB's/LHS in lieu of LC gates.
2. Manning of unmanned level crossings gates.
3. Interlocking of level crossing gates.
4. Use of Train Actuated Warning Device (TAWD) and Anti-Collision Device(ACD).
5. Upgradation of safety features in locomotives.
6. Upgradation/ replacement of overaged tracks, bridges, S&T gears and rolling stock.
7. Reduction in thermit weld joints.
8. Continuous Track Circuiting.
9. Use of SPURT Cars for rail flaw detection.
10. Use of fire detector smoke detectors and fire retardant material in rolling stock, work centers and RRIs at Stations
11. Use of crash worthy coaches and tight lock couplers with anti climbing features.
12. Upgradation of ART/ARMV's and improving the skill of ART/ARMV's staff with regular training of the latest techniques and upgradation of equipment to ensure preparedness for providing quick relief.
13. Provision of Vigilance Control Device (VCD) in locomotives.
14. Upgradation of standard of interlocking at stations.
15. Provision of LED based signals for improved visibility.

1.1 Disaster Management Plan :

Railway Board's Safety Directorate vide their letter no. 2003/Safety-I/6/2 dated 29.09.2003, High level Committee recommendation item no. 15 and Indian Disaster Management Act 2005 section 36, have laid down the requirement of a Zonal Railway Disaster Management Plan. All the aspects of disaster management and guidelines have been covered in this Zonal Disaster Management Plan

A Disaster Management Plan should not be something **"done a few years ago"**, gathering dust on the shelf. There is the need for constantly revisiting plans to see how good they have been when implemented. This process of review, rehearsal and training should be continuous, so that the oral tradition is every bit as strong as the written word in the manual.

1.2 Disaster Management Act 2005 :

The Parliament of India enacted the National Disaster Management Act in 23rd December 2005, and published under item no. 53 in the Gazette of India of 2005. This ACT brings about a



paradigm shift in India's approach to Disaster Management. The centre of gravity stands visibly shifted to preparedness, prevention and planning from the earlier response and relief centric approach. The proposed legislation is in the concurrent list of constitution and thus has the advantage that it will permit the states also to enact their own legislation on disaster management. The new ACT provides that:-

- There shall be a National Disaster Management Authority of which the Prime Minister of India will be the Chairperson, helped by a Vice Chairperson.
- The National Authority shall have the responsibility of laying down the policies, plans and guidelines for disaster management.
- There shall be created State Disaster Management Authorities, expected to be chaired by the Chief Minister of the state.
- There shall be created District Disaster Management Authorities co-chaired by their District Collector and President of the elected body of the district.
- The Central Government shall constitute the National Institute of Disaster Management. State Authorities to meet the immediate needs of providing rescue and relief to the victims of Disasters.
- Disaster Management plan to be prepared and reviewed every year

The Government of India has also constituted a Cabinet Committee on Management of Natural Calamities and Cabinet Committee on Security. Besides above there is a High Level Cabinet Committee and Inter Ministerial Group in place.

Ministry of Home Affairs is the nodal Ministry of all National Disasters except Drought. Ten Battalions of Para-military forces have been trained to serve as the National Disaster Management Response Force (NDRF). These battalions have been made from Para military forces i.e. CRPF, CISF, ITBP & BSF and have been placed in different parts of the country. Each Battalion has six companies comprising of three teams. Each team comprises of 45 men out of which 24 are for Search & Rescue and balance 21 for support functions.

It is proposed to establish four training centers in different parts of the country by respective paramilitary forces. A National Disaster Mitigation Fund and a National Disaster Response Fund are proposed to be created.

Disaster Management Act 2005 legislates a holistic approach to Disaster Management from mere responding to disasters to greater attention to prevention and mitigation, capacity building and preparedness.

1.3 Important Sections of Disaster Management Act 2005 :

Important sections of Disaster Management ACT 2005 have been given below for the benefit of Railway officials:

Section-2 (a) "affected area" means an area or part of the country affected by a disaster.

Section-2(d) "disaster" means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

Section - 2(e) "Disaster Management" means a continuous and integrated process of planning, organising, coordinating and implementing measures which are necessary or expedient for:-

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

Section-30 Powers and functions of District Authority :

- (1) The District Authority shall act as the district planning, coordinating and implementing body for Disaster Management and take all measures for the purposes of disaster management in the district in accordance with the guidelines laid down by the National Authority and State Authority.
- (2) Without prejudice to the generality of the provisions of sub-section (1), the District Authority may:-
 - (i) Prepare a disaster management plan including, district response plan for the district;
 - (ii) Coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan;
 - (iii) Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities;
 - (iv) Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments of the Government at the district level and the local authorities in the district;
 - (v) Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary;
 - (vi) Lay down guidelines for prevention of disaster management plans by the department of the Government at the districts level and local authorities in the district;
 - (vii) Monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level.
 - (viii) Laid down guidelines to be followed by the Departments of the Government at the district level for the purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance therefor.
 - (ix) Monitor the implementation of measures referred to in clause (viii);
 - (x) Review the state of capabilities for responding to any disaster, threatening disaster situation in the district and give directions to the relevant departments or authorities at the district level for their up gradation as may be necessary;



- (xi) Review the preparedness measures and give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation;
- (xii) Organize and co-ordinate specialized training programme for different levels of officers, employees and voluntary rescue workers in the district;
- (xiii) Facilitate community training and awareness programme for prevention of disaster or mitigation with the support of local authorities, governmental and non governmental organizations;
- (xiv) Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
- (xv) Prepare, review and update district level response plan and guidelines;
- (xvi) Coordinate response to any threatening disaster situation or disaster;
- (xvii) Ensure that the Departments of the Government at the district level and the local authorities prepare their response plans in accordance with the district response plan;
- (xviii) Lay down guidelines for; or give direction to, the concerned Department of the Government at the district level or any other authorities within the local limits of the district to take measures to respond effectively to any threatening disaster situation or disaster;
- (xix) Advise, assist and coordinate the activities of the Departments of the government at the district level, statutory bodies and other governmental or non governmental organizations in the district engaged in the disaster management;
- (xx) Co-ordinate with, and give guidelines to, local authorities in the district to ensure that measures for the prevention or mitigation of threatening disaster situation or disaster in the district are carried out promptly and effectively;
- (xxi) Provide necessary technical assistance or give advise to the local authorities in the district for carrying out their functions;
- (xxii) Review development plans prepared by the Departments of the Government at the district level, statutory authorities;
- (xxiii) Examine the construction in any area in the district and, if is of the opinion that the standards for the prevention of disaster or mitigation laid down for such construction are not being or have not been followed, may direct the concerned authority to take such action as may be necessary to secure compliance of such standards;
- (xxiv) Identify building and place which could, in the event of any threatening disaster situation or disaster be used as relief centers or camps and make arrangements for water supply and sanitation in such buildings or places;
- (xxv) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;



- (xxvi) Provide information to the State Authority relating to different aspects of disaster management;
- (xxvii) Encourage the involvement of non-governmental organizations and voluntary social-welfare institution working at the grass roots level in the district for disaster management;
- (xxviii) Ensure communication systems are in order and disaster management drills are carried out periodically;
- (xxix) Perform such other functions as the State Government or State Authority may assign to it or as it deems necessary for disaster management in the District.

Section-33 Requisition by the District Authority :

The District Authority may by order require any officer or any Department at the district level or any local authority to take such measures for the prevention or mitigation of disaster or to effectively respond to it as, may be necessary, and such officer or department shall be bound to carry out such order

Section-34 Powers and functions of District Authority in the event of any threatening disaster situation or disaster :

For the purpose of assisting, protecting or providing relief to the community, in response to any threatening disaster situation or disaster the District Authority may:-

- (a) Give direction for the release and use of resources available with any Department of the Government and the local authority in the District;
- (b) Control and restrict vehicular traffic to, from and within, the vulnerable or affected area;
- (c) Control and restrict the entry of any person into, his movement within and departure from, a vulnerable or affected area;
- (d) Remove debris, conduct search and carry out rescue operations;
- (e) Provide shelter food, drinking water and essential provisions, healthcare and services;
- (f) Establish emergency communication system in the affected area;
- (g) Make arrangements for the disposal of the unclaimed dead bodies;
- (h) Recommend to any Department of the Government of the State or any authority or body under that Government at the district level to take such measures as are necessary in its opinion;
- (i) Require experts and consultants in the relevant fields to advise and assist as it may deem necessary;
- (j) Procure exclusive or preferential use of amenities from any authority or person;
- (k) Construct temporary bridges or other necessary structures and demolish structures which may be hazardous to public or aggravate the effects of the disaster;

- (l) Ensure that the non-governmental organizations carry out their activities in an equitable and non-discriminatory manner;
- (m) Take such other steps as may be required or warranted to be taken in such a situation;

Section-35 The Central Government shall take all such measures as it deems necessary or expedient for the purpose of disaster management and it shall include :

- (a) Coordination of actions of the Ministries or Departments of the Government of India, State Governments, National Authority, State Authorities, governmental and non-governmental organizations in relation to disaster management :
- (b) Ensure the integration of measures for prevention of disasters and mitigation by Ministries or Department of the Government of India into their development plans and projects;
- (c) Ensure that appropriate allocation of funds for prevention of disaster, mitigation, capacity building and preparedness by the ministries or Departments of the Governments of India;
- (d) Ensure that the Ministries or Departments of the government of India take necessary measures for preparedness to promptly and effectively respond to any threatening disaster situation or disaster;
- (e) Cooperation and assistance to the State Governments, as requested by them;
- (f) Deployment of naval, military and air forces, other armed forces of the Union or any other civilian personnel as may be required for the purposes of this Act.

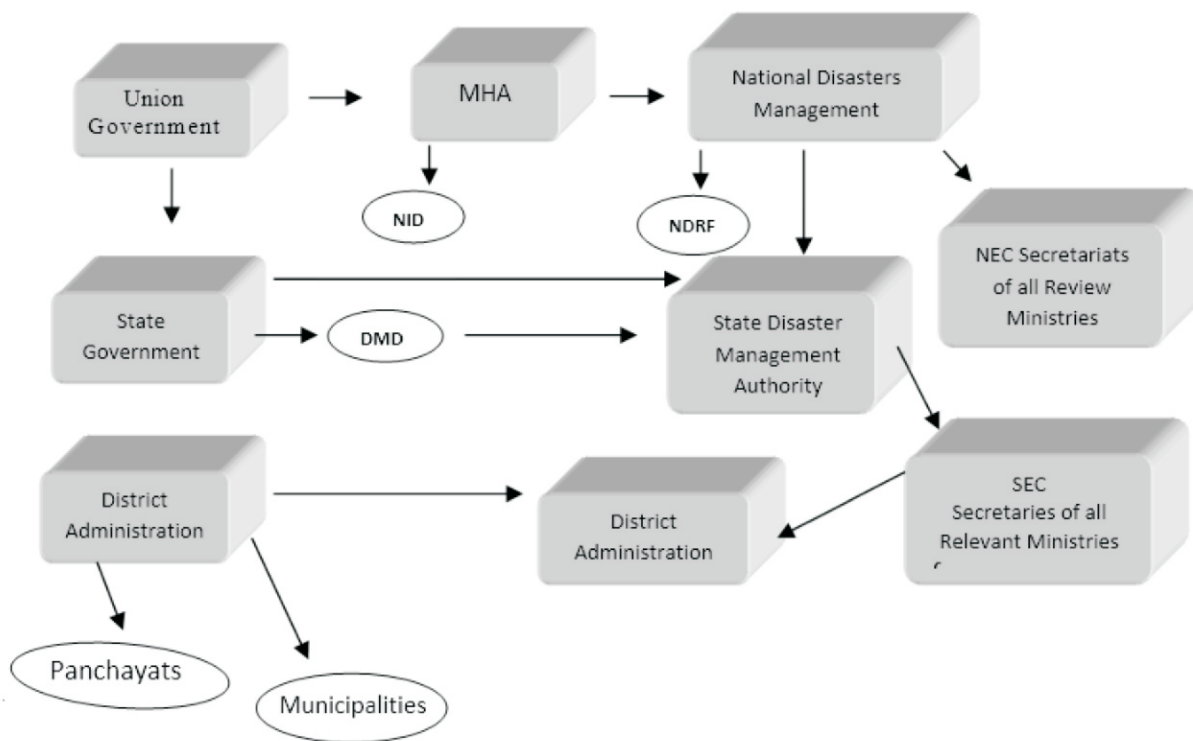
Section-36 Responsibilities of ministries or Departments of Government of India :

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

- (a) Take measures necessary for prevention of disasters, mitigation, preparedness and capacity building in accordance with the guidelines laid down by the National Authority;
- (b) Integrate into its development plans and projects, the measures for prevention or mitigation of disasters in accordance with the guidelines laid down by the National Authority;
- (c) Respond effectively and promptly to any threatening disaster situation or disaster in accordance with the guidelines laid down by the National Authority or the directions of the National Executive Committee on their behalf;
- (d) Review the enactments administered by it, its policies, rules and regulations with a view to incorporate therein the provisions necessary for prevention of disasters, mitigation or preparedness;
- (e) Allocate funds for measures for prevention of disaster; mitigation, capacity building and preparedness;
- (f) Provide assistance to the National Authority and State Government for-
 - (i) Drawing up mitigation, preparedness and response plans, capacity building, data collection and identification and training of personnel in relation to disaster management;

- (ii) Carrying out rescue and relief operations in the affected area;
- (iii) Assessing the damage from any disaster;
- (iv) Carrying out rehabilitation and reconstruction;
- (g) Make available its resources to the National Executive Committee or a State Executive Committee for the purposes of responding promptly and effectively to any threatening disaster situation or disaster, including measures for-
 - (I) providing emergency communication in a vulnerable or affected area;
 - (ii) transporting personnel and relief goods to and from the affected area;
 - (iii) providing evacuation, rescue, temporary shelter or other immediate relief;
 - (iv) setting up temporary bridges, jetties and landing places;
 - (v) providing drinking water essential provisions, healthcare and services in an affected area;
- (h) Take such other actions as it may consider necessary for disaster management;

1.4 Institutional Framework Under the Disaster Management Act, 2005:



No Railway official is nominated either in National Executive Committee (NEC) Executive Committee (SEC) Though they can be co-opted as per need.

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Chapter - 2



CHAPTER - 2

CONCEPT OF DISASTER ON RAILWAYS

2.0 Definition of a Disaster on Railways :

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

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

This can be further elaborated as under -

- (i) A Disaster is an unusual occurrence characterized by sudden calamity, causing great material damage, loss and distress.
- (ii) Disasters are exceptional events which suddenly kill or injure large numbers of people.
- (iii) A Disaster is a situation or event which overwhelms local capacity and necessitating a request at National or International level for external assistance.
- (iv) A disaster may be an event, concentrated in time and space, which threatens the society, or its subdivision, with major unwanted consequences. It is caused as a result of collapse of precautions which had hitherto been accepted as adequate.
- (v) Disaster is a serious train accident or an unfortunate event that leads to loss of lives and/ or grievous injuries to a large number of people, and/or severe disruption of traffic, necessitating help from other government, non govt. and private organizations.
- (vi) A catastrophe, mishap, calamity or grave occurrence in any area, arising from, natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of properties, or damage to, or degradation of environment and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.
- (vii) A National Disaster is any natural phenomenon which causes such wide spread human, material or environmental losses that the stricken community cannot recover without external assistance.

2.1 Disaster defined in Railways' context :

The concept of a Disaster was, till the year 2005, not adequately and comprehensively defined on Indian Railways. It was accepted that a Disaster situation implies, on the railways, to cover only cases of serious rail/train accidents. Following the enactment of the disaster management Act 2005, the broad principles of disaster for any department of the government changed to the concept of **any incident which could not be handled with alone by that department i.e if it was beyond the coping capacity of a departments of Government of India as also the State governments required to join hands to extend whatever facilities were available with them to provide relief/rescue and mitigation on the occurrence of disaster.**

In the DM plan of Indian Railways, this concept of disaster, which has now evolved, has been adopted. This concept and definition of Disaster to understand down the line over WC Railway.

2.2 Changed Philosophy of Disaster Management in the Railways :

With the enactment of the Disaster Management Act, 2005 and other developments on the national level, DM philosophy has also changed to adopt the latest concepts.

NEW PHILOSOPHY

Serious train accidents, not the only events termed as disasters.

- (ii) Other events, e.g. Internal security related events like terrorist attack at station/train, marooning of train due to flash flood, disruption to traffic due to natural factors like earthquake, cyclone, floods etc.
- (iii) No more Relief and Rescue Centric.
- (iv) Holistic Approach adopted to incorporate :-
 - Prevention
 - Mitigation
 - Preparedness
 - Rescue, Relief
 - Rehabilitation

New Philosophy gives more Emphasis on prevention and Mitigation as under

- Prevent and mitigate disasters
- Audit Existing Systems for Disaster Resistance, Disaster Prevention and Mitigation on the basis of NDMA's and self prepared guidelines
- Disaster Management in Development Planning- New activities should be disaster resistant
- Preparedness, Rescue, Relief and Rehabilitation - Dimensions of DM
- Expertise based response from all stake holders
- Pooling of resources of all agencies, e.g. local administration, community, defence hospitals and other Govt. organizations.

2.3 Types of Disaster :

Disaster in the Railway context is the disasters/ Serious train accidents, which may be caused by human/equipment failure, which may affect normal movement of train services with loss of human life or property or both.

(a) Train Accident related Disaster -

Collisions (with a huge number of casualties), Train marooned (flash floods), derailments at a bridge over a river, and coaches falling down; train washed away in cyclone, derailment of a train carrying explosives or highly inflammable material, tunnel collapse on a train, fire or explosion in trains, and other miscellaneous cases etc.

(b) Natural Disaster -

Earthquakes, Floods, Cyclones, Land Slides, Tsunami etc.

(c) Man made Disasters -

Acts of Terrorism and Sabotage, i.e. causing deliberate loss of life and/or damage to property, which includes :-

Setting fire to a Train, Railway installations etc., bomb blast at Railway Station/Train Chemical (Terrorism) Disaster, Biological and Nuclear Disaster.

2.4 Railway Train accidents :

Railway accidents are broadly classified as :

- Consequential train accidents.
- Non-consequential or Other train accidents.

A. Consequential train accidents

Some of the consequential accidents can be termed as Disasters that involve loss of lives and/or grievous injuries to large number of people; and/or heavy loss of Railway property, necessitating help from other Government, Non-Govt., and other private organizations. These include train accidents having serious repercussion in terms of either one or many of all of the following:-

- (i) Loss of human life.
- (ii) Human injury.
- (iii) Loss of Railway property.
- (iv) Interruption to Rail traffic.

Train accidents under following classification will be termed as consequential train accidents:-

1. Collision

Collisions are worst kind of accidents and of three types viz :-

- (i) Head on Collision,
- (ii) Rear End collision,
- (iii) Side Collision.

2. Fire or explosion in trains

This shall include all cases of physical fire or smoke emission resulting in death or injury or damage to property more than threshold value.

3. Level crossing accidents

Applies to accidents at Level Crossings, i.e. at the intersection of the roads with railway track at the same level.

4. Derailment

Means off loading of wheel or wheels causing detention or damage to rolling stock/permanent way.

5. Miscellaneous

All other train accidents that are not covered under the earlier categories are to be treated as miscellaneous accidents.

B. Indicative (non-consequential) train accidents :

These include :

- (i) Averted Collisions
- (ii) Breach of Block Rules
- (iii) Train passing signal at danger

Note:- For a detailed description of classification of train accident, refer to the Appendix-1 of Accident Manual of WCR.

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

The preparation of the Disaster Management Plans on Indian Railways and on the Zonal Railways in co- ordination with the different Departments of the Railways, other Central/State govt. agencies, NGOs, Private agencies, etc. has to be done by the Safety department in the Railways Board, on the Zonal Railways and Divisions.

The Hospital DM Plans and the Security arrangements (drills etc) shall be prepared and co-ordinated by the Medical and the Security deptt. respectively.



The Management of Floods, Cyclones, Earthquakes, Landslides, etc. and preventive action to be taken for mitigation shall be coordinated by the Civil Engg. Deptt.

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

2.6 Nodal Deptt for Compilation /Updating of DM Plans :

Safety department on the Zonal Railways is responsible for compilation of DM Plans at HQ and Division Levels which also need to be reviewed in January every year. These Plans will also to be hosted on the rail-net server of the zonal railways in an interactive format so that the information can be shared and its retrieval is simpler.

Comments on the Indian Railways Disaster Management Plan by NDMA:

The approach in preparing a DM Plan should consist of first analyzing the hazard and risk vulnerability, resources required and capacity development initiatives to be undertaken to minimize the vulnerability, resources available, roles and responsibilities of all concerned stake holders, trigger mechanism and command, control and coordination of disaster through incident command system (Indian Version).

HQ DM Plan should have two components - Mitigation Plan and Response Plan. The review should also consider the lessons learnt from the actual disasters during the preceding year and from annual mock exercises of the Indian railways, conducted in coordination with NDMA.

While revising the Divisional and HQ DM Plans, compliance of NDMA comments must be ensured.

2.7 Periodical Review of Disaster Management Plans:

The DM Plans is to be reviewed and updated at least once a year. In the review changes in policy issued by NDMA/NEC and by the Central Government and Railway Board are to be made. The DM plans of the State Governments and of the Districts need to be gone into periodically and changes incorporated in the respective DM plans of Zonal Railways/Divisions. While revising the Divisions and HQ DM Plans, compliance of NDMA comments must be ensured.

2.8 Safety Deptt. - Nodal Deptt for Compilation/Updating of DM Plans:

Safety department on the Zonal Railways is responsible for compilation of DM Plans at HQ and Divisional Levels which also need to be reviewed every year. These Plans will also to be hosted on the rail-net server of the zonal railways in an interactive format so that the information can be shared and its retrieval is simpler.

2.9 Authority to declare a Disaster on Railways:

Railways Board has also approved to nominate GMs, AGMs or CSOs (when GM/AGM are not available) for declaring an untoward incident as Railways Disaster. With the adoption of the above definition of railway disaster, it needs to be appreciated that not only a serious train accident may turn into a railway disaster, if not handled and managed properly, there may be many more railway related events which may not even involve human lives but may turn into disasters for which necessary prevention and mitigation measures are to be taken by the railways beforehand. Zonal Railways will ensure that prevention, mitigation, preparedness, rescue and relief related issues covering all types of disasters affecting railway system are addressed and their details are also appropriately incorporated in their Disaster Management plans.

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Chapter - 3



CHAPTER - 3

PREPAREDNESS FOR DISASTER AND MOCK DRILL

3.1 National Level :

The Ministry of Home Affairs is the Nodal Ministry for all Disasters at national level except Drought. A round the clock control room in Ministry of Home Affairs, National Disaster Management Division is functioning.

Ministry of Home Affairs, Government of India has formed a National Disaster Response Force at the ten selected locations in the country for dealing with relief and rescue operations related to all types of disasters.

There are no charges for availing the services of NDRF except the rail transportation which railway may provide at their cost for attending to rail accidents. Railways may also have to provide rail transportation logistics for transporting NDRF in case of non railway exigencies

Board's policy direction given to the Zonal Railways that the DRM's can directly approach for requisitioning the services of the NDRF now stand revised (as per Advisor Safety, Railway Board's letter No. 203/Safety(DM) 6/3 Dated 09.11.2009). The need for the services of the NDRF shall be communicated in a centralized manner by the Zonal Railways through the NDMA only. However, requisitioning of NDRF should be judicious and NDM control room under Ministry of Home Affairs

(Tele. No. 011-23092885 Fax No. 011-23093750) and security control room (Tele No. 011-23387981 Fax No.-011-23303983) and Safety cell (Tele No. 011-23382638) in the office of Railway board must be kept informed.

3.2 National Plan :

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

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

The National Plan shall include-

- i) Measures to be taken for the prevention of disasters, or the mitigation of their effects;
- ii) Measures to be taken for the integration of mitigation measures in the development plans;
- iii) Measures to be taken for preparedness and capacity building to effectively respond to any threatening disaster situations or disaster;
- iv) Role and responsibilities of different Ministries or Departments of the Government of India in respect of measures specified in clauses (a), (b) and (c).

The National Plan shall be reviewed and updated annually.

Appropriate provisions shall be made by the Central Government for financing the measures to be carried out under the National Plan;

Copies of the National Plan referred to above shall be made available to the Ministries or Departments of the Government of India and such Ministries or Departments (including Railways) shall draw up their own plans in accordance with the National Plan.



3.3 Role of the Nodal and other Central Ministries and Departments etc :

For various types of disasters, the nodal Ministry concerned will chart out detailed Response Plans which will be integrated into the National Response Plan. The NEC may coordinate response in the event of any threatening disaster situation or disaster. The nodal Ministries and Departments of Government of India (i.e. the Ministries of Agriculture, Atomic Energy, Civil Aviation, Earth Sciences, Environment and Forests, Home Affairs, Health, Mines, Railways, Space, Water Resources etc.) will continue to address specific disasters as assigned to them.

3.4 West Central Railway Level :

This railway has three divisions Bhopal, Jabalpur, Kota. The Jurisdiction of West Central Railway is given below-

- i. Khandwa (Excluding) to Manikpur (Excluding) via Itarsi, Jabalpur
- ii. Mathura (excluding) to Nagda (excluding) via Sawaimadhopur, Kota.
- iii. Bina (including) to Itarsi via Bhopal.
- iv. Kota to Chanderia (excluding)
- v. New Katni Junction to Bina.
- vi. Katni to Singrauli (excluding).
- vii. Satna to Rewa.
- viii. Jukehi to Kymore.
- ix. Bina-Guna-Kota.
- x. Gwalior (excluding)-Guna-Maksi.

3.5 Location of Tunnels over WCR :

S.No.	Division	Tunnel	Length	Section	Kms.	Ventilation	Electric Lighting
1	Jabalpur	Bagra Tawa	290mts	JBP-ET	770/7	Not Available	Available
2	Kota	Bhimlat	320mts	KTT-COR	61/9-62/0	Not Available	Available
3	BPL	Budhni	250mts	ET-BPL	773/6-22	Available at every 50 mts	Available
4	BPL	Midghat	230mts	ET-BPL	776/40-777/22	Side Ventilation at middle	Available
5	BPL	Bhimkoti	135mts	ET-BPL	778/46-52	Not Available	Available
6	BPL	Chowka	145mts	ET-BPL	782/30-16	Not Available	Available

All the tunnels on West Central Railway are having natural ventilation & lighting as per details given below:-

Natural ventilation provided by way of vertical shafts at every 50m. intervals Horizontal access to tunnel at mid point.



3.6 Location of ARTs over WCR :**Jabalpur Division**

- (i) New Katni Junction (A Class, with 140 T crane)
- (ii) Jabalpur (B Class)
- (iii) Satna (Tool VAN)

Note: A new SPART/SPRMV has been commissioned and stationed at New Katni Jn.

Bhopal Division

- (i) Itarsi- (A Class, with 140 T Crane)
- (ii) Bhopal- (B Class)
- (iii) Bina- (A Class, with 140 T Crane)
- (iv) Guna- SPART (Self Propelled Accident Relief Train) (C Class)

Kota Division

- (i) Kota (A Class, with 140 T Crane)
- (ii) Gangapur City (B Class)

3.7 Locations of ARTs with 140 T Crane in adjoining Zones/Divisions :**North Central Railway**

- (i) Jhansi (A Class), Agra Cantt (A Class)

North West Railway

- (i) Jaipur (A Class)

Western Railway

- (i) Ratlam (A Class)

SEC Railway

- (i) Bilaspur (A Class)

Central Railway

- (i) Bhusawal (A Class)
- (ii) Ajni (Nagpur) (A Class)

East Central Railway

- (i) Barbadih (A Class)

On receipt of information regarding a train accident ART/ARMV's locating nearest to the site of accident are to be rushed to the accident site in as expeditious manner as possible.

3.8 ARMVs Scale-I : Consisting of Medical Van & Auxiliary Van. Equipment stored in Special Medical Relief Vans stabled in separate sidings.

- (i) One key of the van is available with the Station Master in a glass-fronted case.
- (ii) Other key is kept in a glass-fronted case in doctor's chamber of health unit/casualty of Divisional Hospital.
- (iii) Medicines and equipment are provided as per Railway Board norms.
- (iv) Keys of all locks inside the ARMV are also in duplicate. One set of keys are tied to the handle of cup board of the SPART/ARMV and the other set of keys in a glass fronted case inside the SPART/ARMV.
- (v) Keys of all locks inside ART are available with SSE (Break Down).



Location of ARMV Scale-I :

Jabalpur Division

- (i) New Katni Junction.
- (ii) Jabalpur
- (iii) Satna

Bhopal Division

- (i) Itarsi
- (ii) Bina
- (iii) Bhopal
- (iv) Guna (SPARMV)

Kota Division

- (i) Kota
- (ii) Gangapur city

3.9 ARMV Scale-II : Equipment stored in boxes in Special room on platform at station

- (i) The medical equipment boxes to be without any lock.
- (ii) The scale II rooms have duplicate keys.
- (iii) One key is in a glass fronted case in the doctor's chamber of health unit and the other is in a glass fronted case in Station Master Office.
- (iv) These are to be taken out and rushed to the site by any train or available Road vehicle.

Location of ARMV Scale-II over WCR :

1. Jabalpur Division:

Narsinghpur, Sohagpur Sagar Damoh, Satna, Beohari

2. Bhopal Division:

Shajapur, Harda

3. Kota Division :

Shamgarh, Jhalawar Road, Bayana, Sawai Madhopur.-

3.10 Locations of ARMVs/SPARMVs in adjoining zones/Divisions

North Central Railway

- (i) Jhansi
- (ii) Allahabad

North West Railway

- (i) Jaipur

East Central Railway

- (i) Chopan

Central Railway

- (i) Bhusawal
- (ii) Nagpur
- (iii) AMF
- (iv) Wardha

3.11 Positioning of Rescue Ambulances :

- Rescue ambulances are to be positioned at railway hospitals in divisions having good road networks.
- Air lifting of needy, seriously injured passengers to nearby hospitals shall be explored by zonal crack team with the approval of competent authority.

- Armed forces should also be approached for assistance during disasters by divisional/ HQ officials.

3.12 Sounding of Accident Alarm Siren / Hooter :

Alarm siren are provided at Station/yards where accident relief train/medical van are stabled and are also provided at control offices in the Divisions. The accident alarm siren are sounded immediately from control office of divisions (except in Kota Division where siren is sounded at concerned station where ART/ARM E is stabled).

Following codes are prescribed for sounding the accident alarm siren:

Circumstances	Code
For accidents in loco sheds / traffic yards home station requiring only break down train.	Two long siren each of 45 seconds duration with 5 seconds break in between.
For accidents outside the home station requiring only break down train	Three long sirens each of 45 seconds duration with 5 seconds break in between.
For accidents at home station requiring both ' medical van & break down train.	Four long sirens each of 45 seconds duration with 5 seconds break in between.
For accidents outside the home station requiring both medical van & break down train.	Five long sirens each of 45 seconds duration.
For cancellation of medical van and break down train.	One long siren of 90 seconds duration.

The Alarm siren shall be twice with an interval of 5 minutes between each code signal.

3.13 Target time for turning out the medical van :

In case of double exit siding - 15 minutes from the time of sounding of siren.

In case of single exit siding - 20 minutes from the time of sounding of siren.

The time is reckoned from the time of ordering to the time of despatch.

3.14 Target time for turning out the break down trains / tower wagon :

During Day- 30 minutes from the time of sounding of siren.

During Night-45 minutes from the time of sounding of siren.

The time is reckoned from the time of ordering (sounding) to the time of leaving the shed / siding.

3.15 Mock Drill : Mock Drill is a series of hypothetical accident conditions that create forces to act instantaneously to raise our level of awareness of potential accidents and our means to deal with them. The Mock Drill will be conducted by Sr DSO with the personal approved of DRM and after advising PCSO.

1. Objective

- To gauge the preparedness which requires detailed planning and keeping of all equipment in good fettle.
- To integrate the operational response to measure overall performance of the exercise.
- To measure performance in regard to accident restoration.

2. Guidelines

- Mock drill shall be conducted at least once in 3 months either during day or night. It is desirable not to repeat the drill again and again at the same time or same section.



- (b) Such drills shall not hamper regular working of trains.
- (c) It may be ensured that no inconvenience is caused to travelling public. Such drills should not lead to panic which may result in inconvenience or injury to the public.
- (d) While absolute secrecy and confidentiality shall be maintained regarding the conduct of mock drill, CSO, GM, AGM, Secy. to GM shall be advised in advance of such mock drill.
- (e) Except under instructions or orders from HQ, this drill shall be confined only to the respective divisions and on this account, no traffic shall be refused from the adjoining divisions/railways.
- (f) Mock drill trials may end with the departure of ARME/ART. However, if considered necessary, DRM may permit the ARME/ART to proceed upto the mock accident site. In such cases the drill shall end with the various agencies having set up their field establishment and deployed their equipment.
- (g) During these trials, the following aspects shall be closely watched by the officer in-charge of the drill -
 - (i) Turning out of ARME/ART within the prescribed time.
 - (ii) Speed of the specials
 - (iii) Assembly of staff
 - (iv) Handling of accident relief cranes, HRDs, HREs and other rescue equipment
 - (v) Logging of events
 - (vi) Functioning of field telephones and communication network, generator sets, lighting equipment.
 - (vii) Preparedness of first-aiders and availability of medical equipment.

On completion of the drill, a detailed report shall be submitted within a week time to the Headquarters detailing :-

- (a) Response time of ARTs/ARMEs
- (b) Alertness and skill of the staff
- (c) Deficiencies noticed and corrective measures initiated and any assistance required.

3.16 Full Scale Exercise :

As per NDMA Guidelines, the NDMA should be involved in annual exercises on DM by Indian Railways to associate NDRF. As per the HLC recommendation at S. No. 106, each division should conduct a full scale disaster management exercise once a year, on the similar exercise pattern of Army Exercises, to check and assess their preparedness for Disaster Management. State civil authorities, governmental and non-governmental medical establishments and NGOs should also be involved in full scale exercise.

Unified Command Centres and Combined Command Centres should be set up. Each department will post their functionaries in Unified Command Centres and Combined command centres.

All basic facilities should be provided in Unified Command Centres and Combined command centres.

On completion of the exercise a detailed report shall be prepared indicating deficiencies noticed, corrective measures initiated and improvements required.

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Chapter - 4



CHAPTER - 4

NDMP AND NDMA GUIDELINES

4.1 Prime Minister's Ten-Point Agenda for Disaster Risk Reduction:

The Prime Minister, Shri Narendra Modi, enunciated a Ten-Point Agenda in his inaugural speech at the Asian Ministerial Conference on Disaster Risk Reduction 2016, held in New Delhi during November 2016 (AMCDRR), which has also been incorporated in the NDMP. The ten key elements consist of the following:

1. All development sectors must imbibe the principles of disaster risk management.
2. Risk coverage must include all, starting from poor households to SMES to multi-national corporations to nation states.
3. Women's leadership and greater involvement should be central to disaster risk management.
4. Invest in risk mapping globally to improve global understanding of Nature and disaster risks.
5. Leverage technology to enhance the efficiency of disaster risk management efforts.
6. Develop a network of universities to work on disaster-related issues.
7. Utilise the opportunities provided by social media and mobile technologies for disaster risk reduction.
8. Build on local capacity and initiative to enhance disaster risk reduction.
9. Make use of every opportunity to learn from disasters and, to achieve that, there must be studies on the lessons after every disaster.
10. Bring about greater cohesion in international response to disasters.

4.1.1 Given below is a description of the Ten Point of Agenda for Disaster Risk Reduction:

First, all development sectors must imbibe the principles of disaster risk management. This will ensure that all development projects—airports, roads, canals, hospitals, schools, bridges are built to appropriate standards and contribute to the resilience of communities they seek to serve. Over the next couple of decades, most of the new infrastructure in the world will come up in Asia. This points to the need for ensuring that all the infrastructure development conforms to the best available standards of disaster safety. Such an approach is a smart strategy, which will pay off in the long term.

It is necessary that all the public investments must incorporate disaster risk considerations. In India, the 'housing for all' programme and 'smart cities' initiatives represent such opportunities. India will work with other partner countries and stakeholders to build a coalition or mechanism for promoting disaster resilient infrastructure in the region. This will help generate new knowledge for hazard risk assessment, disaster resilient technologies and mechanisms for integrating risk reduction in infrastructure financing.

Second, It is necessary to work towards risk coverage for all – starting from poor households, it must cover small and medium enterprises as well as large multi-national corporations. Currently, in most countries of the region, penetration of insurance is limited only to a narrow section, mostly in the middle and upper-middle income groups. It is necessary to think big and innovatively to widen the risk insurance cover. States have an important role in not just regulating but also encouraging coverage for those who need it the most. Some bold steps have been taken to ensure financial inclusion and risk insurance for the poorest. The Jan Dhan Yojana has brought millions of people into the banking system.



The Suraksha Bima Yojana provides risk insurance to millions who need it the most. The newly launched Fasal Bima Yojana (crop insurance) will provide risk cover to millions of farmers. These are the basic building blocks of resilience at the household level.

Third, it is necessary to encourage greater involvement and leadership of women in disaster risk management. Women are disproportionately affected by disasters. They also have unique strengths and insights. India must train a large number of women volunteers to support special needs of women affected by disasters. There is also need for women engineers, masons and building artisans to participate in post-disaster reconstruction and promote women self-help groups which can assist in livelihood recovery.

Fourth, it is necessary to invest in mapping risks globally. For mapping risks related to hazards such as earthquakes, there are widely accepted standards and parameters. Based on these, India has mapped seismic zones, with five as highest seismic risk and two as low risk. For disaster risk related to other hazards such as chemical hazards, forest fires, cyclones, different types of floods, India needs to adopt globally accepted standards and categories. This will help India to ensure that there is a shared understanding of the nature and severity of disaster risks and compare with that in other parts of the world.

Fifth, efforts must be made to leverage technology to enhance the efficiency of our disaster risk management efforts. An e-platform that brings together organizations and individuals and helps them map and exchange expertise, technology and resources would go a long way in maximizing the collective impact.

Sixth, it will be helpful to develop a network of universities to work on disaster-related aspects since universities have social responsibilities too. Over the first five years of the Sendai Framework, an effort can be made to develop a global network of universities working together on problems of disaster risk management. As part of this network, different universities could specialize in multi-disciplinary research on disaster issues most relevant to them. Universities located in coastal areas could specialize in managing risks from coastal hazards, and the ones located in the hill cities could focus on mountain hazards.

Seventh, utilize the opportunities provided by social media and mobile technologies. Social media is transforming disaster response. It is helping response agencies in quickly organizing themselves and enabling citizens to connect more easily with authorities. In disaster after disaster, affected people are using social media to help each other. Those responsible for disaster management must recognize the potential of social media and develop applications relevant to various aspects of disaster risk management.

Eighth, disaster management must build on local capabilities and initiatives. The task of disaster risk management, particularly in rapidly growing economies, is so huge that formal instructions of the state can at best be instrumental in creating the enabling conditions. Specific actions have to be designed and implemented locally. Over the last two decades, most community-based efforts have been confined to disaster preparedness and contingency planning for the short term. It is necessary to expand the scope of community-based efforts and support communities to identify local risk reduction measures and implement them. Such efforts reduce risk and create opportunities for local development and sustainable livelihoods. Localization of disaster risk reduction will also ensure that good use is made of the traditional best practices and indigenous knowledge. Response agencies need to interact with their communities and make them familiar with the essential drill of disaster response.

For example, if a local fire service visits one school in its area every week, it would sensitize thousands of children over a period of one year.

Ninth, ensure that the opportunity to learn from a disaster is not wasted. After every disaster there are studies and reports on lessons learnt that are rarely applied. Often the same mistakes are repeated. It is necessary to have a vibrant and visual system of learning. The United Nations could start an international competition of documentary films that record disaster events, their scale, and relief, rehabilitation, reconstruction and recovery afterwards. Post-disaster recovery is an opportunity to not just 'build back better' in terms of physical infrastructure, but also in terms of improved institutional systems for managing risk. For this, it is necessary to put in place systems that can quickly provide risk assessments. India must work with partner countries and multilateral development agencies to establish a facility for technical support to post-disaster reconstruction of houses.

The **tenth** and last, it is necessary to bring about greater cohesion in international response to disasters. In the aftermath of a disaster, disaster responders pour in from all over the world. This collective strength and solidarity could be enhanced further if the activities are organised under a common umbrella. The United Nations could think of a common logo and branding under which all those who are helping with relief, rehabilitation and reconstruction operate.

4.1.2 Objectives along with the mandate given in the DM Act 2005 and the NDMP 2009, the national plan has incorporated the national commitments in the domain of DRR associated with the three major post-2015 global frameworks and the PM's Ten Point Agenda. Accordingly, the broad objectives of the NDMP are:

1. Improve the understanding of disaster risk, hazards, and vulnerabilities.
2. Strengthen disaster risk governance at all levels from local to centre.
3. Invest in disaster risk reduction for resilience through structural, non-structural and financial measures, as well as comprehensive capacity development.
4. Enhance disaster preparedness for effective response.
5. Promote "Build Back Better" in recovery, rehabilitation and reconstruction.
6. Prevent disasters and achieve substantial reduction of disaster risk and losses in lives, livelihoods, health, and assets (economic, physical, social, cultural and environmental).
7. Increase resilience, prevent the emergence of new disaster risks, reduce the existing risks and manage the residual risks.
8. Promote the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures to prevent and reduce hazard exposure and vulnerabilities to disaster.
9. Empower both local authorities and communities as partners to reduce and manage disaster risks.
10. Strengthen scientific and technical capabilities in all aspects of disaster management.
11. Capacity development at all levels to effectively respond to multiple hazards and for community-based disaster management.
12. Provide clarity on roles and responsibilities of various Ministries and Departments involved in different aspects of disaster management.
13. Promote the culture of disaster risk prevention and mitigation at all levels.
14. Facilitate the main streaming of disaster management concerns into the developmental planning and processes.



15. Ensuring DRR is socially inclusive, gender sensitive and empowering.
16. Build and strengthen the resilience of poor communities to prevent disasters aggravating poverty and to protect livelihoods.
17. Enhanced main streaming of disaster risk reduction and climate adaptation strategies within the agriculture sector including sustainable farming.
18. Special focus on disaster risk reduction measures for agriculture and livestock.
19. Promoting resilient health systems to develop the capacities and resilience of communities to cope and recover from disaster impacts.
20. Enhance the resilience of health systems by integrating DRR into all levels of health care.
21. Promote disaster-resilient schools, colleges and other educational facilities.
22. Promote women's leadership and active participation in disaster risk reduction.
23. Strengthen efforts to mainstream DRR into water management and reduce the likely impacts of water-related hazards.
24. Strengthening and promoting the resilience of new and existing critical infrastructure.
25. Integration of disaster risk reduction considerations and measures into financial and fiscal instruments.
26. Main streaming DRR into development and implementation of all projects and schemes (rural and urban).
27. Strengthen disaster risk modeling, assessment, mapping, monitoring and multi-hazard early warning systems.
28. Promote comprehensive surveys on multi-hazard disaster risks and the development of regional disaster risk assessments and maps, including climate change scenarios.
29. Implementation of ecosystem-based approaches regarding shared resources, such as within river basins, mountainous regions and coastlines.
30. Effective use of science, technology and traditional knowledge in all aspects of DRR Supplementary.

4.2 NDMA Guidelines on Chemical Disaster:

Chemical, being at the core of modern industrial systems, has attained a very serious concern for disaster management within government, private sector and community at large. Chemical disasters may be traumatic in their impacts on human beings and have resulted in the casualties and also damages nature and property. The elements which are at highest risks due to chemical disaster primarily include the industrial plant, its employees & workers, hazardous chemicals vehicles, the residents of nearby settlements, adjacent buildings, occupants and surrounding community. Chemical disasters may arise in number of ways, such as:-

1. Process and safety systems failures
 - Human errors
 - Technical errors
 - Management errors
2. Induced effect of natural calamities
3. Accidents during the transportation
4. Hazardous waste processing/disposal
5. Terrorist attack/unrest leading to sabotage



4.2.1 Salient features of NDMA Guidelines on Chemical Disaster:

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 demands 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.

4.2.2 Railways Red Tariff – Transport of Hazchem:-

Indian Railways have also been transporting chemicals and hazardous materials e.g. Petroleum products (Petrol, Naphtha, HSD etc.), Caustic soda, Alcohol, Compressed gases (LPG gas etc.) Chemical manures, Acids, Matches etc. These goods are carried either in the SLRs or in the Parcel Vans or in the goods wagons. Quantum and type of transportation of such hazardous material varies from railway to railway and different zonal railways need to prepare 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, DO's & Don'ts, precautions 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 132 other corrosives) are dealt in bulk on the railways whereas other classes of dangerous goods are dealt in piecemeal/small quantities in parcel vans/SLRs. Railways may refer to the specific paras pertaining to all these classes of dangerous goods.



4.2.3 Preventive Action in 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 50 m away). This is essential as in the case of derailment of Naphtha 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.

4.3 NDMA Guidelines on Natural Disaster-Earthquake:

An earthquake is a phenomenon that occurs without warning and involves violent shaking of the ground and everything over it. It results from the release of accumulated stress of the moving lithospheric or crustal plates. The earth's crust is divided into seven major plates, that are about 50 miles thick, which move slowly and continuously over the earth's interior and several minor plates. Earthquakes are tectonic in origin; that is the moving plates are responsible for the occurrence of violent shakes. The occurrence of an earthquake in a populated area may cause numerous casualties and injuries as well as extensive damage to property.

4.3.1 The Earthquake Risk in India:

India's increasing population and extensive unscientific constructions mushrooming all over, including multistoried luxury apartments, huge factory buildings, gigantic malls, supermarkets as well as warehouses and masonry buildings keep – India at high risk.

The North-Eastern part of the country continues to experience moderate to large earthquakes at frequent intervals including the two great earthquakes mentioned above. Since 1950, the region has experienced several moderate earthquakes. On an average, the region experiences an earthquake with a magnitude greater than 6.0 every year. The Andaman and Nicobar Islands are also situated on an inter-plate boundary and frequently experience damaging earthquakes.

As a result, loss of human life is not the only determinant of earthquake risk any more. Severe economic losses leading to the collapse of the local or regional economy after an earthquake may have long-term adverse consequences for the entire country. This effect would be further magnified if an earthquake affects a mega-city, such as Delhi or Mumbai.

4.3.2 High-risk seismic zones in India:

The Bureau of India standards has classified regions in India into four seismic zones on the basis of historical seismic activity. These are zones II, III, IV and V. Among these, zone V is the most seismically active region and zone II is the least active. According to Modified Mercalli scale, the seismic zone intensity are classified as zone II (low intensity zone), zone III (moderate intensity zone), zone IV (severe intensity zone) and zone V (very severe intensity zone).

According to the Ministry of Earth Sciences, Zone V includes entire northeastern India, parts of Jammu and Kashmir and Himachal Pradesh, Uttaranchal, Rann of Kutch in Gujarat, parts of North Bihar and Andaman & Nicobar Islands. Zone IV includes the remaining parts of Jammu and Kashmir and Himachal Pradesh. Delhi-NCR region, Sikkim, northern parts of Uttar Pradesh, Bihar and West Bengal, parts of Gujarat and small portions of Maharashtra near the west coast and Rajasthan also fall in this zone.

Regions under zone III are Goa, Kerala, Lakshadweep, remaining parts of Uttar Pradesh, Gujarat and West Bengal, parts of Punjab, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, Maharashtra, Orissa, Andhra Pradesh, Tamilnadu and Karnataka.

The remaining portion of the country falls under zone II.

According to the government analysis and seismic revision, major cities under earthquake threat are: **Zone V cities** – Guwahati and Srinagar, **Zone IV cities** – Delhi, Patna, Dehradun, Jamnagar, Meerut, Jammu, Amritsar and Jalandhar, **Zone III cities** – Ahmedabad, Vadodara, Surat, Rajkot, Bhavnagar, Pune, Bhiwandi, Nashik, Greater Mumbai, Thane, Bhubaneswar, Cuttack, Chennai, Asansol, Coimbatore, Agra, Varanasi, Bareilly, Lucknow, Kanpur, Kolkata, Indore, Jabalpur, Vijaywada, Dhanbad, Mangalore, Kochi, Kozhikode, Trivandrum.

The threat is as real as it gets and preparedness is the only solution to avert something that is beyond human control. Although none of the metropolises have been hit by major quake in India recently, the potential devastation it could cause is catastrophic.

In 1905, Kangra was hit by a magnitude 8.6 quake that killed at least 19,000 people. A temblor that hit Bihar in 1934 at magnitude 8.4 shook buildings from Mumbai to as far as Lhasa. The destruction in Bihar was overwhelming. At least 11,000 people were killed.

Assam was hit in 1950 with one of the biggest quakes in the Himalayas at magnitude 8.5. Over the decades that followed, a magnitude 6.6 quake that hit Bihar-Nepal in 1988 killed over 1,000 people. Latur was hit in 1993m killing 7,928 people. The quake that hit Bhuj in Gujarat in 2001 killed at least 13,800 people.

4.3.3 Richter Magnitude Scale:

The Richter magnitude scale, also known as the local magnitude (M) scale, assigns a number to quantify the amount of seismic energy released by an earthquake. It is a base- 10 logarithmic scale.

Richter magnitude	Description	Earthquake effect
< 2.0	Micro	Micro earthquakes, not felt.
2.0-2.9	Minor	Generally not felt, but recorded.
3.0-3.9		Often felt, but rarely causes damage.
4.0-4.9	Light	Noticeable shaking of indoor items, rattling noises. Significant damage unlikely.
5.0-5.9	Moderate	Can cause major damage to poorly constructed buildings over small regions. At most slight damage to well-designed buildings.
6.0-6.9	Strong	Can be destructive in areas up to about 160 kilometres (100 mi) across in populated areas.
7.0-7.9	Major	Can cause serious damage over larger areas.
8.0-8.9	Great	Can cause serious damage in areas several hundred miles across.
9.0-9.9		Devastating in areas several thousand miles across.
10.0+	Epic	Never recorded.

4.3.4 What to do After an Earthquake:

- Keep calm, switch on the radio/TV and obey any instructions you hear on it.
- Keep away from beaches and low banks of rivers. Huge waves may sweep in.
- Be prepared to expect aftershocks.
- Turn off the water, gas and electricity.
- Do not smoke and do not light matches or use a cigarette lighter. Do not turn on switches. There may be gas leaks or short-circuits. Use a torch.
- If there is a fire, try to put it out. If you cannot, call the fire brigade.
- If people are seriously injured, do not move them unless they are in danger.
- Immediately clean up any Inflammable products that may have spilled (alcohol, paint etc.).
- If you know that people have been buried, tell the rescue teams. Do not rush and do not worsen the situation of injured persons or your own situation.
- Avoid places where there are loose electric wires and do not touch any metal object in contact with them.
- Do not drink water from open containers without having examined it and filtered it through a sieve, a filter or an ordinary clean cloth.
- If your home is badly damaged, you will have to leave it. Collect water containers, food, and ordinary and special medicines (for persons with heart complaints, diabetes etc.).
- Do not re-enter badly damaged buildings and do not go near damaged structures.

4.3.5 Emergency kit: In earthquake prone areas, the recommended emergency kit to be kept ready is as under-

- Battery operated torch.
- Extra batteries.
- Battery operated radio.
- First aid kit and manual.
- Emergency food (dry items) and water (packed and sealed).
- Candles and matches in a waterproof container.
- Knife.
- Chlorine tablets or powdered water purifiers.
- Can opener.
- Essential medicines.
- Cash, Aadhar Card and Ration Card.
- Thick ropes and cords.
- Sturdy shoes.

4.4 NDMA Guidelines on Natural Disaster-Floods:

4.4.1 Vulnerability to Floods:

Floods have been a recurrent phenomenon in India and cause huge losses to lives, properties, livelihood systems, infrastructure and public utilities. India's high risk and vulnerability is highlighted by the fact that 40 million hectares out of a geographical area of 3290 lakh hectares is prone to floods. On an average every year, 75 lakh hectares of land is affected, 1600 lives are lost and the damage caused to crops, houses and public utilities is Rs. 1805 crores due to floods.

Eighty percent of the precipitation takes place in the monsoon months from June to September. The rivers bring heavy sediment load from the catchments. These, coupled with inadequate carrying capacity of the rivers are responsible for causing floods, drainage congestion and erosion of river-banks. Cyclones, cyclonic circulations and cloud bursts cause flash floods and lead to huge losses. The fact that some of the rivers causing damage in India originate in neighbouring countries, adds another complex dimension to the problem.

As per the constitutional provision, Flood Management (FM) is a state subject and as such the primary responsibility for flood management lies with the states.

The Ministry of Water Resources is responsible for the technical aspects of Flood Management. The Ministries of Agriculture, Civil Aviation, Environment and Forest, Health, Space, Earth Sciences, Mines, Railways etc. Also have important role in management of floods in their respective fields. Not only floods, but management of all types of disasters is the basic responsibility of the States and Central Govt. Role is restricted to that of support in terms of coordination, resource allocation and making available requisite funds.

4.4.2 India Meteorological Department:

The IMD established in 1875, is responsible for the National Meteorological Services and the principal government agency in all matters relating to meteorology, seismology and allied subjects. The IMD is mandated as follows:-

- To warn against severe weather phenomena like tropical cyclones, north-westerly dust storms, heavy rains and snow, cold and heat waves etc., which cause destruction of life and property.
- For the convenience of administrative and technical control, there are six Regional Meteorological Centres (RMCs) located at Mumbai, Chennai, New Delhi, Kolkata, Nagpur and Guwahati. Under each RMC, there are different types of operational units such as meteorological centres at state capitals, forecasting offices, agro-meteorological advisory service centres, flood meteorological offices (FMOs) and area cyclone warning centres.

4.4.3 Activities for Minimizing Flood Risk and Losses:

(a) By Central/State Governments:

These activities include identification and marking of flood prone areas on maps, preparation of close contour and flood vulnerability maps, formulating plans for expansion and modernization of flood forecasting and warning systems, identification of priority flood protection and drainage improvement works, identification of reservoirs for review and modification of operation manuals and rule curves and undertaking special studies on problems of river erosion.

(b) Increase in Water Ways:

Examining adequacy and if required, increasing the water ways of bridges/culverts under roads railway embankments by the Ministry of Shipping, Road Transport and Highways (MOSRTH), Ministry of Railways, Ministry of Defence, National Highways Authority of India, Border Road Organisation and State governments.

4.4.4 Action Plan for Alignment, Location, Design and Provision of Waterway on Railways Embankments:

Roads and Railway embankments cut across the drainage lines and may lead to increase in vulnerability of the area, through which they pass and to flooding and drainage congestion, if they are not properly aligned, located and designated. Inadequate waterway in the form of

vents/culverts/bridges/causeways is another cause of increase in vulnerability to floods. Further, breaches in them may result in huge loss of life and properties. Insufficient height of rail embankments may result in overtopping and breaches.

The Ministry of Shipping, Road Transport and Highways (MOSRTH), MOR, MOD, NHAI, BRO, State Government/SDMAs will ensure that national highways, state highways, district and other roads are aligned, located and designed properly with respect to height and width and provided with adequate waterway in the form of vents, culverts, bridges and causeways so as to make them flood safe and not increase the vulnerability of the area to flooding and drainage congestion. The safety of existing roads/railway embankments against floods will also be checked by the MOSRTH, MOR, MOD, NHAI, BRO and state governments/SDMAs/DDMAs and if found inadequate, measures by way of increasing height and width and augmenting water way by constructing additional bridges/culverts/causeways or by adding more spans to existing ones, will be taken up.

4.4.5 Flood Forecast:

Forecasts (stage/inflow) are issued whenever the river stage at the Flash Flood site exceeds or is likely to exceed a specified level called warning level of the site which is fixed in consultation with the concerned state government. The warning level is generally 1 m below the danger level of the site, although there is no common format designed for issuing flood forecasts by various fields divisions, as forecasts are issued according to the users convenience. In the forecast, the current date and time of issue of forecast, present water level/inflow and anticipated water level/inflow with corresponding date and time are normally included.

4.4.6 Dissemination of Flood Forecasts and Warnings:

On reaching a critical point, the final flood forecasts are then communicated to the user agencies such as the concerned administrative and engineering authorities of the state/central governments including railways, defence and other agencies connected with flood protection and DM by special messenger/telegram/wireless/telephone/fax/e-mail.

4.4.7 The Central Water Commission's Flood Forecasting Network in India:

The CWC's FF network covers most of the flood prone inter-state river basins in the country. The CWC is presently issuing flood forecasts for 175 stations of which 147 stations are for river stage forecast and 28 for inflow forecast. Role of CWC to be given out in detail as their warnings are more relevant for flood forecast and effecting evacuation. For Railways, early warnings are important for smooth movement of trains.

4.4.8 Flood Preparedness of Ministry of Railways:

Board has advised RDSO to compile the Flood vulnerable areas in Formation, Cutting, Bridges and Buildings etc. along with a questionnaire.

Ministry of Railways has asked RDSO to coordinate IR activities for implementation of National Disaster Management Authority's guidelines on 'Management of floods (Jan. 08) by zonal railways and production units. NDMA Guidelines have been made available to all zonal railway and production units.

4.4.9 Action Plan of Ministry of Railways:

The following Action Plan should be followed by the Zonal Railway:-

Flood/weather forecasting in consultation with IMD and other agencies like CWC, State Government, local bodies etc.

Development of system of collecting data using modern techniques, Monitoring of landslides, flood danger to bridges, bridge approaches causing interruption to traffic.

Identification of flood prone areas, RAT, RAW and information prone to erosion/breaches and marking them on railways system map. Monitoring of behaviour of rivers which pose danger to railway embankment. Documentation of records of flood and breaches. Flood Insurance of Railway properties – A pilot project to be taken by each Railway through help of suitable consultants. Mechanism for coordination with State Government and other Central Agencies on flood control and erosion etc. Sanction and execution of Anti Erosion works of track, formations, bridges etc. Improvement to water ways of bridges in track formation (if necessary) including sanction and execution of works. Development of Flood Shelters for staff and passenger at suitable locations in the areas prone to repeated floods. Implementation of Bye-laws for buildings in flood prone areas including modifications of Works Manual. Training of Flood Management to officials in various Railway Training Schools and institutions by devising suitable syllabus. Emergency response team on floods. Study of silting pattern resulting in reduction in reservoir/Dam's water holding capacity over years to forecast and extrapolate future impact on track due to over flow and need of additional waterway. Study of changed rainy season month on a particular region. Installation of Flood water level monitoring system.

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Chapter - 5



CHAPTER - 5

DISASTER RESPONSE–OVERVIEW

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.

5.2 Disaster Syndrome:

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

5.3 3 Different phases of Disaster Response:

Disaster Response in case of a railway accident consists of 3 phases. These 3 phases are determined both by the time factor, as also by the extent of specialized assistance available. Firstly, it begins with the spontaneous reaction of men available on the 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 that continue to be hospitalised for comparatively longer spells are then the sole responsibility of railway's medical department.

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

5.4 Capacity Building To Handle Disaster

5.4.1 Disaster Management to be inbuilt in Developmental Plans :

The National Policy on Disaster Management Provides for development of the Disaster Management handling capability to each Ministry/Department of the Central Government as also by the State Government. As per the policy, NDMA will ensure mainstreaming of disaster risk reduction in developmental agenda in all existing and new developmental programmes and projects shall incorporate disaster resilient specifications in the design and construction. The Planning Commission will give due weightage to these factors while allocating resources.

5.4.2 Responsibilities of the Central Ministries and Departments :

The National Policy on Disaster Management lays down that all Central Ministries and Department will prepare their DM Plans and where funds are being asked for to improve Disaster Management capability including the financial projections to support these plans. The necessary budgetary allocations will be made as part of the Five Year and Annual Plans.

5.4.3 National Disaster Response and Mitigation Funds :

As per the National Policy on Disaster Management, a National Disaster Response Fund may be constituted as mandated in the Act. The National Response Fund will be applied by the National Executive Committee (NEC) towards meeting the expense for emergency response, relief and rehabilitation, in accordance with the guidelines laid down by the Central Government in consultation with the NDMA. The proposal of merger of National Calamity Contingency Fund (NCCF) with the National Disaster Response Fund shall be as recommended by the Finance Commission from time to time.

Similarly, as mandated by the Act, the National Disaster Mitigation Fund (NDMF) may be created for projects exclusively for the purpose of mitigation. NDMF shall be applied by the NDMA and shall be as recommended by the Finance Commission from time to time.

5.4.4 Modernization of Relief/Rescue during Disasters :

The National Policy on Disaster Management provides that all Cental Ministries and Departments of the Central Government and of the States will build capacity to handle different types of Disasters based on guidelines issued by the NDMA.

Helicopter based relief rescue missions on par with similar arrangements existing in western world can also be used extensively for Mass Casualty Evacuation and for providing relief where required for Railway own Disaster situation like a major train accident where the site is not approachable by rail or by other road vehicles this would be the only means of relief. Therefore, Railway Board has suggested that all Zonal Railways may obtain details of Government and Private Helicopter service and the contact numbers of their operators to be contacted in advance. The Disaster Management Plan of the Zonal Railway and the Divisions should make a mention of

the helicopter service providers. If these services are not available on one Zonal Railway, they may contact the nearest Zonal Railway where they are available to be called upon in a disaster situation.

The images of the year 2001 of a crash of an intercity train in Germany, killing more than 100 people, show 35 to 40 helicopters landing and taking off near accident site.

We have to have a total paradigm shift in the manner in which serious train accident relief is to be managed in the second decade of the 21st century. A much more radical approach would be gradually need to be introduced that what is existing on date.

Sensitive installations of Railway need to be identified. Therefore, as per the guide lines, all Zonal Railways need to define sensitive installations and infrastructure. These should be ones which would cripple the Railways primary objective of transportation. For instance, Control Rooms; Microwave Towers; TF Exchanges; RRI of Jn Stations, Major Bridges, Tunnels of long lengths, Hospitals etc. are very sensitive/ vulnerable locations.

5.4.5 Crowd control and Management of rush at Railway Station during festivals :

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

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

5.4.6 Terrorist attacks on a freight train carrying inflammables :

Railways have an excellent liaison with the oil companies due to the transport of their commodities viz, Motor spirit, HSD, Naptha etc. Traditionally we have always made use of their foam extinguishers along with the expertise in fire control available with them.

Gradually, Railway may have to develop both the expertise through training in the Railways Rescue, Relief Training Institute being set up at Bangalore; also procure gradually foam type of fire extinguishers in limited numbers.

5.4.7 Capacity Building to reduce destruction due to earthquakes, floods etc :

RDSO has been assigned the task of identifying vulnerable building, locations, rail infrastructure including bridges, sensitive location, waterways embankments etc. Based on this, strengthening works would be undertaken by prioritizing essential locations/buildings so as to strengthen Railways infrastructure.

5.5 First Aid in Emergency :

- a) Order of priority for dealing with and helping injured passengers should be as follows:
 - Unconscious.
 - Bleeding excessively.
 - Having breathing problems.

- Grievously injured.
- In a state of shock.
- Having fractures.
- Simple injured.

b) For assessing and handling injuries, acronym DRABC is to be followed.

(i) **D-DANGER:**

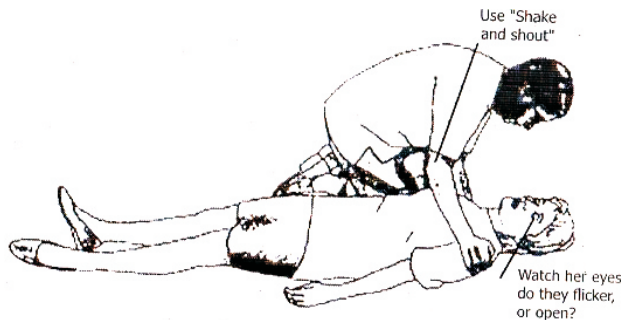
Look for danger; Make sure that no further danger exists either for the patient or for the FirstAider.

(ii) **R-Response**

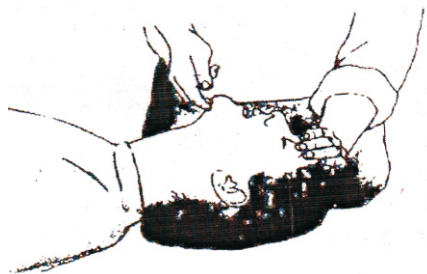
Check for consciousness. Call by his/her name, slap, and pinch and shake gently. If there is no response, then it means that the patient is unconscious.

(iii) **A-AIR WAY**

Clear the airway (Trachea) if patient is unconscious, then the airway may be narrowed 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.

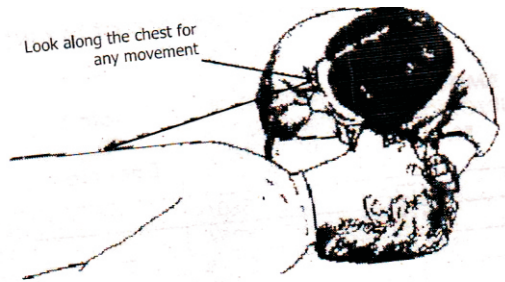


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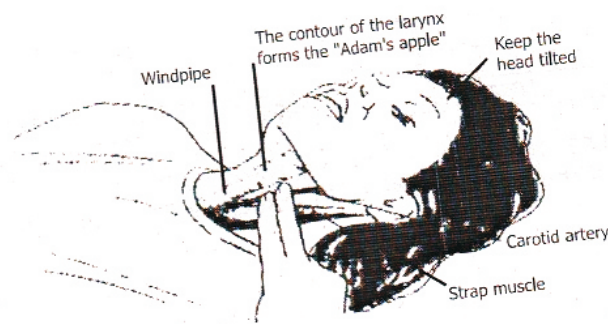


(iv) B-BREATHING:

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).



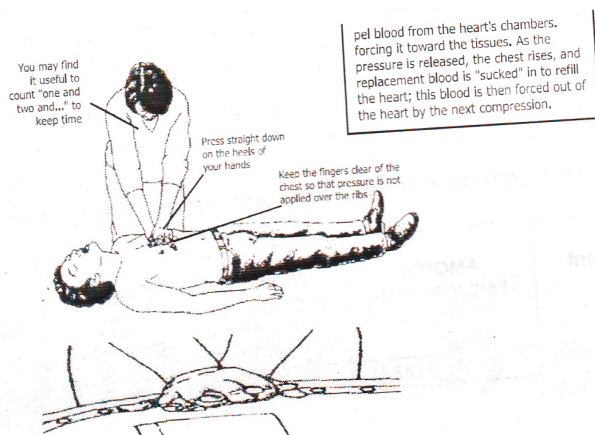
After checking DRABC, there may be two possibilities.

- 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. Life the chin forward and press the jaw open the mouth with one hand and close the nose with other hand keep your mouth on the casualty's mouth and blow:



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

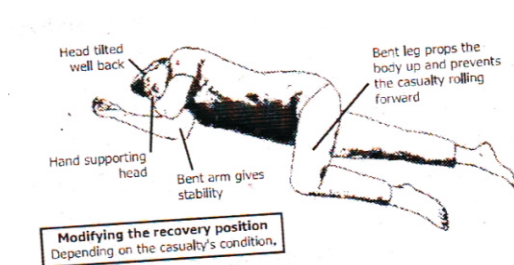


Mouth to mouth ventilation and external chest compression should be given in the ratio of 2:15.

This should be continued up to the revival of life or till reaching the hospital. Once life starts, immediately turn the casualty into recovery position and transport to hospital. (Recovery position or three quarter prone position means turn to one side, better to right side)

Recovery position:

Recovery position is the safest position for unconscious patients. Normally we keep the patient in a supine position. However, in case of unconscious patients, it is a very dangerous position because the tongue can fall back and close the 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.

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Chapter - 6



CHAPTER - 6

DISASTER RESPONSE – INSTANT ACTION TEAM

6.1 INSTANT ACTION TEAM (IAT):

Instant Action Team comprises:

- (i) The Guard, Crew, TS, TTEs, AC coach attendant, Asst. Guard, RPF and other railway staff on duty on the accident involved train.
- (ii) GRP staff traveling on the train on duty.
- (iii) Railway staff traveling by the accident involved train either on duty or on leave as passengers.
- (iv) Doctors travelling by the train.
- (v) Passengers traveling 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.

6.2 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 traveling 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.

6.3 Duties of Guard, Loco Pilot, Assistant Guard, Assistant Loco Pilot, Train Superintendent / Train Ticket Examiner, AC Mechanic / Attendant & RPF /GRP 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 Flashing Tail Lamp, in the rear of brake van.
- iii) Inform Driver on walkie-talkie set.
- iv) Inform Station Master on Walkie-talkie set, if possible.
- v) Protect adjacent line/lines if required and the line on which the accident has taken place as per GR 6.03
- vi) Secure the train and prevent escaping of vehicles.



- vii) Make a quick survey of magnitude of accident and roughly assess casualty, damage and assistance required.
- viii) Send information through quickest means to Control Office and SMs on either side of the block section. For this purpose.
 - a) CUG Mobiles / Walkie-talkie communication provided with stations should immediately be used.
 - b) Otherwise field telephone should be used.
 - c) If a train comes on the other line, which is not blocked, the same should be stopped and information sent through the driver.
 - d) Assistant driver or Assistant guard may be sent to the next station to convey information of the accident.
 - e) If all of the above fail, one of the railway staff on duty on the train should be sent on foot to the nearest station.
- ix) Utilize Emergency Train Lighting box to facilitate medical aid.
- x) Save lives and render First Aid.
- xi) Call for Doctors and seek their assistance.
- xii) Seek assistance of railway staff and other volunteers from train to rescue injured or entrapped passengers.
- xiii) Direct railway staff and other volunteers from train for attending to injured.
- xiv) Ensure that railway staff constantly man field telephone.
- xv) Arrange protection of 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 a competent authority relieves you.

b) Loco Pilot :

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

- ix) Send information through quickest means to Control Office and SMs on either side of the block section. For this purpose,
 - a) Walkie-talkie communication provided with stations should immediately be used.
 - b) Otherwise field telephone should be used.
 - c) If a train comes on the other line, which is not blocked, the same should be stopped and information sent through the driver.
 - d) Assistant driver or Assistant guard may be sent to the next station to convey information of the accident.
 - e) If all the above fail, one of the railway staff on duty on the train should be sent on foot to the nearest station.
- x) Render all possible assistance to the guard.
- xi) Preserve all clues and evidence regarding probable cause of the accident and ensure that these do not get disturbed.
- xii) Log your activities, Do not leave the spot unless you are relieved by a competent authority.
- xiii) If necessary detach Loco and take it to inform SM.

c) Assistant Guard :

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

d) Assistant Loco Pilot :

- i) Assistant Loco Pilot should work under the control of the Loco Pilot with the same duty list of the Loco Pilot. Loco Pilot and Assistant Loco Pilot should divide the work so that the duties are carried out in the shortest possible time.
- ii) The Asst Loco Pilot will follow instructions given to him by driver.
- iii) To provide First Aid to injured. First Aid box is available with Guard.
- iv) If necessary use fire extinguishers, which are available in all type of coaches, with Guard and Loco Pilot.
- v) In case if the Loco Pilot is dead or injured, Asst. Loco Pilot will perform all the duties of driver mentioned in para 8.3 (b)

e) Train Superintendent / Traveling 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 traveling by the train and render Medical Aid.
- iii) Render First Aid to injured.
- iv) Collect particulars of injured passengers and prepare a list showing exact position of injured in coaches, from Train Engine to Brake Van. This should be handed over to railway doctors when ARME arrives.

- v) Prepare a separate list of dead passengers with address and ticket particulars, if available.
- vi) 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 / other at site.

f) AC Mechanic / Attendant :

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

g) RPF/GRP Staff :

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

6.4 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 on duty with immediate effect.
- ii) Under no circumstances should any of them leave the accident site unless and until divisional officers arrive, take over charge of rescue and relief operations, and permit them to leave.
- iii) Railway staff on train/at site shall volunteer themselves to render assistance and report to TS/TTE/Guard of the Train.
- iv) The senior most officers travelling on the train will assume charge as Officer-in-Charge Site (OC Site).
- v) Normally the senior most officers will be traveling in either the 1AC or in 2AC coach, and most probably in the Emergency Quota section of the coach. The Emergency Quota section of 2AC is invariably in the centre of the coach. In any case the TS/TTE would know whom are the railway officers traveling in 1AC or 2AC.
- vi) Similarly, other railway staff will be traveling in 3AC coach, and most probably in the Emergency Quota section of the coach. The Emergency Quota section of 3AC is also in the centre of the coach.
- vii) Similarly, some Group 'D' railway staff may be traveling in Sleeper coach, and probably in the Emergency Quota section of the coach. The Emergency Quota section of a Sleeper coach is located in the centre of the coach.

- viii) In the absence of any officer, the TS or senior most TTE/Guard will discharge duties listed out for OC site.

6.5 Duties of OC Site— Immediately after the accident :

- i) Note down the time of accident.
- ii) Ensure protection of traffic by Guard and Driver.
- 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 and 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.
 - From here onwards, the DRM of the accident involved division takes over Charge as OC site.

6.6 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 that volunteer for rescue and relief work should also be drafted into these groups.
- iii) Passengers from accident-involved coaches should be directed toward their own coach.
- iv) Passengers from coaches, which are not affected, 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/Assistant 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 numbers 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 numbers of Sr. Supervisors are also not present, one TTE should be nominated as in-charge of each group to co-ordinate it's working.
- xii) Each group should rescue injured, entrapped passengers.

6.7 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 their 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 that 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.

6.8 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 emergency windows panes, exists 02 to 04, should be broken open in order to let in fresh air for the occupants, and thereafter to evacuate them.

- vi) Non-AC IInd Class Sleeper coaches have two emergency exit window on each side. The position of this emergency window is 5th from the doors on either side of coach. They are opposite berth nos. 17,23,52 and 55. 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 fewer 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 Hdqtrs. generally arrive at the site of the accident within 2 to 3 hours, depending on the distance of the accident site from the divisional Hdqtrs. Wait for them to come and make further arrangements.
- xvii) Grievously injured passengers who are bleeding or those who are unconscious require immediate hospitalisation. In case some local people have arrived by that time, their help should be taken in shifting the grievously injured to the nearest hospital.
- xviii) In case your train has been involved in an accident but neither has your coach derailed nor any passengers of your coach injured, then you should go to the unreserved coaches and carry out the duties as listed above.

6.9 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 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.

6.10 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 their general direction will be available in the Divisional DM Plans.
- (vi) Having ascertained the general location of nearby villages, send messengers (preferably railway staff) to inform villagers and seek their assistance.

(b) Locating the nearest manned level crossing gate :

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

(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 accidents.
- (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, chistles etc. as are available. Ropes, Ladders,
- (iii) If doctors or Para-medical staffs 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.

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Chapter - 7



CHAPTER - 7

DISASTER RESPONSE – FIRST RESPONDERS

7.1 Role 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 coordinate 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 hospitalisation of more than 48 hrs. is grievous, hospitalisation of less than 48 hrs. is simple, and any injury not requiring hospitalisation 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 injury,
- (x) Dead bodies, if extricated should be kept alongside the coach but away from the track for proper tagging etc. before being dispatched for preservation.
- (xi) Bodies should be kept in separate lots, 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.

7.2 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 in rescue and relief work.
- (iv) Assist in extricating injured passengers from coaches.
- (v) Assist in transporting them to nearest hospitals.

2. Gate man:

- (i) Keep gate closed if the train has not cleared the gate.
- (ii) He shall arrange to inform SM immediately under exchange of private number regarding the nature of the accident.
- (iii) Collect men and material available nearby and direct them to site.
- (iv) In case the gate is involved in an accident, which obstructs and fouls the track and the gate is provided with the gate signals, then the signals shall be put to 'ON' position immediately.
- (v) If the Boom / Wing is broken he shall close the gate with Safety Chain. Keep gates closed if the train has not cleared the gate.
- (vi) He shall immediately fix Red Banner Flag in Daytime and Red Lamp in Nighttime on wooden staff at both ends of the gate 5 meters away from the obstruction on either sides.
- (vii) On Double / Multiple line section he shall stop any train approaching the accident area by showing Danger Hand Signals.
- (viii) He shall rush with Detonators, Tricolor Torch and Red Flag by Day and Red Hand Signal by night in the direction of the approaching train and place one detonator at a distance of 600 Mts. on BG line. Thereafter he shall proceed to a distance of 12000 Mts. on BG section and place three detonators on the track 10 Mts. apart. After that he shall return to the level crossing gate picking up the intermediate detonator on his way back. Thereafter he shall proceed towards the other direction and place the detonators similarly.
- (ix) On returning to the gate he shall not meddle with the clues and evidences of accident & also not tamper with the interlock system.
- (x) Avail services of road vehicles waiting or passing through LC Gate.
- (xi) Send message to nearby village, informing them regarding the accident.
- (xii) On double/multiple line section stop any other train approaching the accident area by showing hand danger signal.
- (xiii) Parting of Trains: If a gateman notices that a train has parted he shall not show a stop hand signal to the pilot, but shall endeavour to attract the attention of the pilot and guard by shouting gesticulating and displaying a Green Flag by Day and white light by night in Up & Down Vertically as High & Low as possible.
- (xiv) Gateman shall not leave his gate unless other gateman has taken charge of it. If it is necessary to leave his gate in an emergency, before doing so, he should close and lock the gates against the public road and must inform and get permission to do so.

3. Cabin man:

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

4. Pointsman:

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

5. Station Superintendent In charge:

- (i) He shall quickly & promptly convey all type of information to adjoining stations and section control.
- (ii) He shall arrange protection of traffic by keeping relative signals at 'ON' position and also arrange to preserve the clues/evidences of accident.
- (iii) He shall call for the 'On' duty & 'OFF' duty staff at the site of all departments including RPF & GRP staff.
- (iv) Communication with civil authorities, Village, Town, Cities, NGO Representatives /Volunteers for possible relief assistance.
- (v) Call for assistance for medical aspects from civil/private doctors and Army medical hospitals. Mobilise local medical team and injured passengers to hospitals. Quickly transport of ARMV Scale II equipments.
- (vi) Passenger Assistance: Arrange drinking water beverages and refreshment free of cost either from refreshment room and local resources. Open emergency counter and display necessary information regarding dead/injured passengers and convey it. Make frequent announcement about diversion, cancellation and regulation of train services and arrange for refund of fares as per extent rules.
- (vii) Transport Assistance: Arrange transporting injured passengers to nearest hospitals apart

from tractors, trolleys, Trucks, Buses passing on the Highways/nearby can be utilised or by hiring road vehicles.

- (viii) Security Assistance: Arrange RPF/GRP/State police to provide security to passengers there belongings and RLY. Properties. They should also be asked to assist in rescue and relief work.
- (ix) Communication Assistance: Direct passengers to PCO booths available nearby and issue free telegram and make available STD phone to relatives of dead/injured.
- (x) Sending Manpower: Proceed to site of the accident by quickest means with trolleys, coolies, lamps, vendors and any other equipment that is considered necessary.
- (xi) Preservation of clues and evidences: Secure records related to accident in the Station/Cabin. Seal slides, levers, knobs and Relay room, if accident takes place within the Station limit.
- (xii) Protection: Protect adjacent lines then protect the same line on either side. Note the position of points etc., and clamp the points against the line on which the train is affected. Put "Line Blocked " lever collar in cabin / SM's slide control from where the lever is operated.
- (xiii) He shall not relive the site of accident till the Traffic Inspector or Divisional Officers relieves him.

6. Station Master / Assistant Station Master:

- (i) He shall quickly & promptly convey all type of information to adjoining stations and section control.
- (ii) He shall arrange protection of traffic by keeping relative signals at 'ON' position and also arrange to preserve the clues/evidences of accident.
- (iii) He shall prepare the relevant Authority to send the first train on occupied section and nominate one Pointsman to pilot the train / vehicle.
- (iv) He shall call for the 'On' duty & 'OFF' duty staff at the site of all departments including RPF & GRP staff.
- (v) Communication with civil authorities, Village, Town, Cities, NGO Representatives /Volunteers for possible relief assistance.
- (vi) Call for assistances for medical aspects from civil/private doctors and Army medical hospitals. Mobilise local medical team and injured passengers to hospitals. Quickly transport of ARME Scale II equipments.
- (vii) Passenger assistance: Arrange drinking water beverages and refreshment free of cost either from refreshment room and local resources. Open emergency counter and display necessary information regarding dead/injured passengers and convey it. Make frequent announcement about diversion, cancellation and regulation of train services and arrange for refund of fares as per extent rules.
- (viii) Transport assistance: Arrange transporting injured passengers to nearest hospitals apart from tractors, trolleys, Trucks, Buses passing on the Highways/nearby can be utilised or by hiring road vehicles.
- (ix) Security assistance: Arrange RPF/GRP/State police to provide security to passengers there belongings and RLY. Properties. They should also be asked to assist in rescue and relief work.
- (x) Communication Assistance: Direct passengers to PCO booths available nearby and issue free telegram and make available STD phone to relatives of dead/injured.

- (xi) Sending manpower: Proceed to site of the accident by quickest means with trolleys, coolies, lamps, vendors and any other equipment that is considered necessary.
- (xii) Preservation of clues and evidences: Secure records related to accident in the Station/Cabin. Seal slides, levers, knobs and Relay room, if accident takes place within the Station limit.
- (xiii) Protection: Protect adjacent lines then protect the same line on either side. Note the position of points etc., and clamp the points against the line on which the train is affected. Put "Line Blocked " lever collar in cabin / SM's slide control from where the lever is operated.
- (xiv) He shall not relive the site of accident till the Traffic Inspector or Divisional Officers relieves him.
- (xv) He shall obey the orders given by higher authorities from time to time.
- (xvi) He shall work during accident as per the instructions laid down in G&SR Accident Manual and SWR.

7. Safaiwalla:

- (i) He shall follow the instructions of the Team leader of the Rescue operations.
- (ii) He shall preserve Dead bodies under the instructions of the team leader & Doctors.
- (iii) He shall do all sanitation work at the site.

7.3 Duties of 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 in terms of telegraph posts.
 - OHE 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 Jn. station shall proceed to accident site.

(b) Medical Assistance:

(i) Call for assistance from local Doctors, St. JAB, Civil and Army Hospitals. Civil defence, Scouts and guides or any such organisation.

(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 ARMV Scale-II 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 utilised.

(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.

(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/SM 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.



7.4 Duties of TI/PWI/SI/CWI/ CLI:**(a) Rushing to accident site with men and material:**

- (i) Before leaving for the site of accident organise 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. Note down observations, measurements of Loco etc. at site. If it is not possible arrange for taking the reading at shed.
- (viii) These can also be recorded on a video or digital camera subject to the availability.
- (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) SSE(C&W)/DCWI shall prepare a sketch showing position of Rolling stock.
- (xii) PWI shall prepare a final sketch indicating the position of track, with respect to alignment, point of mount, point of drop, OHE mast, point number etc.
- (xiii) Survey the situation, assess assistance required and issue message to Divisional Control Office.
- (xiv) Take charge of the situation pertaining to your own department and remain till Divisional officers arrive at the site.

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Chapter - 8



CHAPTER - 8

DISASTER RESPONSE – OFFICERS AT DIVISION & HEADQUARTER

8.1 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 be briefly informed 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) PCOR will undertake the following action in the given order of priority:
 - (a) Give orders to Loco Foreman for sounding the siren for ARMEs and ARTs.
 - (b) PCR will also order movement of ARME and ART (with 140T crane) from adjoining divisions for approaching the accident site from the other end; details given in Chapter -3.
 - (c) Thereafter he will inform his departmental officers and supervisors.
- (ix) Dy. CHC (Punctuality) 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:

Functionary

- Dy. CHC (Op.)
- Dy. CHC (Punctuality)
- TPC
- PCOR
- Commercial Control
- Security Control

Officers and Supervisors

- Operating & Safety. Engg. Personal & Accounts
- Hospital Casualty, DRM, ADRM, Medical
- Electrical, S&T & Stores
- Mechanical
- Commercial, Public Relations
- RPF

- (xi) For this purpose, all functionaries working in Mobile) of all officers and supervisors of their of telephone numbers (Railway, BSNL and Mobile) of all of all officers and supervisors of their departments.



- (xii) After Dy. CHC (Punctuality) has informed Hospital Casualty, DRM, ADRM and Medical Doctors, he will then inform Dy CHC (Punctuality) or Dy. CHC (Op) in Hdqtrs, Emergency Control regarding the accident.

2. Intimation of Accident— Railway Doctors:

Dy. CHC (Punctuality) 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, and other Doctors & Para medical staff and instruct them to reach the ARME immediately.
- (iii) Collect necessary Medical team in the hospital.
- (iv) Inform CMD about movement of ARME.
- (v) Alert blood donors, St. JAB, Civil defence Scouts and guides or any other such organisation.
- (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 box from ARME Scale-II locations to the accident site.

3. Intimation of Accident — Hdqtrs. Emergency Control Office:

- (i) In Hdqtrs. Emergency Control Office also, the accident bell in control room should be sounded for alerting all on-duty functionaries.
- (ii) After they gather around the CHC/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 Hdqtrs, Officers of his department about the accident as detailed below:
 - Dy. CHC (Op). Operating & Safety. Engineering,
Personnel, Accounts.
 - Dy. CHC (Punctuality) GM, Medical.
 - TPC Electrical, S&T
 - PCOR/CCR Mechanical, Stores
 - Commercial Control Commercial, Public Relations, RPF
- (v) For this purpose, all functionaries working in the Emergency control office will have a ready list of telephone numbers (Railway, BSNL, and Mobile) of all officers and supervisors of their departments.
- (vi) Dy. CHC (Punctuality) will inform GM, PCSO, nominated PHODs and Medical Doctors.
- (vii) GM will inform CRB regarding the above accident.
- (viii) PHODs will inform their respective Board Members. In case PHOD is not available in Hdqtrs., then the next senior most officer of that department will inform his Board Member.
- (ix) PCSO/Dy. CSO (T) will inform CRS.
- (x) Dy. CHC (Punctuality) will thereafter inform JBP Division control office regarding running out of 1st Special train to the accident site carrying GM and other Hdqtrs Officers.
- (xi) Functionaries of different departments will also inform their respective departmental officers regarding timing of 1st special train carrying GM and other Hdqtrs. 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 Nagpur, Gwalior, Agra etc. by Secy. to GM or by Private hiring.

4. Informing Non-Railway Officials by the Division:

The portion having details relating to Disaster management plan i.e. relevant information such as details of civil authorities to be contacted whenever required or assistance during serious accidents (disasters) shall be dealt with by Operating Department (Principal Chief Operations Manager) of the Railway concerned.

(Rly. Bd's Letter No. 2002/Safety(A&R)/19/29 Dated 31.12.08.)

- (i) DM, SP and CMS of the district within which the accident site falls should be informed regarding the accident by the CHC of the concerned Division.
- (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 Mailbags 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 Chief Secretary, Addl.Chief Secretary, DGP, ADG (GRP), etc. of Madhya Pradesh & Rajasthan State Government are given in Data Bank.

5. Divisional Officers required to go to site:

- (i) All concerned divisional officers required to go to the accident site should proceed by the ARME.
- (ii) Road vehicles should be sent to accident site separately. Maximum number of road vehicles should be sent to accident site from Divisional Hdqtrs.
- (iii) ARME shall be despatched within 15" by day and within 20" by night after sounding of siren.
- (iv) DRM will proceed to the accident site; ADRM shall stay back at divisional Hdqtrs. for coordination work as a head of Quick Reaction Team of Divisional Hdqtrs.
- (v) Branch Officers, as directed by DRM, 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 Hdqtrs and will be a part of Quick Reaction Team of Divisional Hdqtrs.
- (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-
 - (a) As many as possible nos. of officers should go to the accident site, and rest should stay back at Hdqtrs.
 - (b) Similarly, as many as possible nos. of supervisory staff should go to the accident site, and rest should stay back at Hdqtrs.



- (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 Hdqtrs to work in Quick Reaction team of Divisional Hdqtrs.
- (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 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 the field at other stations should also 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 computerized recorded control message from DRM to all supervisors for proceeding to the accident site immediately by fastest possible means.

7. Hdqtrs. officers required to go to site :

- (i) Hdqtrs officers required to go to the accident site and also those as directed by GM should proceed by the 1st available means (or special train if ordered by GM)
- (ii) Jabalpur Divisional Control office shall arrange this special train, in consultation with Hdqtrs. Emergency Control. Their departmental functionaries in Hdqtrs. Emergency Control will inform schedule departure time to Hdqtrs. officers.
- (iii) PHODs should issue Local Instructions based on the above regarding supervisors required to go to the accident site.

8.2 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.
 - Waving off of post Mortem formalities.
 - Positioning of Municipal officials in the CAC for issuing of official Death Certificate.
- (iv) Ensure that proper assistance is rendered by each department.
- (v) Ensure that in addition to one vehicle available in Control office round the clock, sufficient numbers of vehicles are available along with particulars of the Drivers.
- (vi) Immediately decide which officer should go by road/ART/ARME.
- (vii) Nominate the officer to man Control office.
- (viii) Depute ADRM as in charge in control office if proceeding to the site.
- (ix) Arrange to advise the Home Secretary/Chief Secretary of other officers of the state in case of sabotage for prompt attendance of the S.P.
- (x) Function as the senior most officer and as "Accident Manager"

- xi) Arrange a preliminary enquiry by Divisional Officers, in cases where an enquiry by the CRS/SAG Officers is to be held but immediate investigation of certain matters is necessary.
- xii) Appoint two officers as reporters of serious accidents.
- xiii) Arrange for taking joint observation/ reading by supervisors.

8.3 Duties of Additional Divisional Railway Manager:

As soon as information of serious train accident is received, he shall-

- (i) Undertake making of announcements over local TV channel and Cable network for all supervisory staff to rush to the accident site and immediately hold a meeting with members of Quick Reaction Team of Divisional Hdqrs.
- (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 division/zones.
- (iv) Co-ordinate with State Govt.
- (v) Co-ordinate with Defence and Para Military authorities.
- (vi) Monitor various important media channels to keep track of media reporting. Suitable corrections/clarifications may also be issued, if required.

8.4 Duties of Safety Department:

PCSO will proceed to accident site Duties of Safety Organisation at accident site:

- 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) Ensure that special trains are sent into the accident affected block section.

Duties of Sr. DSO:

- 1) Proceed to the site of accident by first available means.
- 2) Ensure marshalling of the crane before the ART reaches site.
- 3) Ensure joint measurements etc. in prescribed Performa.
- 4) The required vehicles are kept for enquiry as per rules.
- 5) Plan for efficient movement of ART, engine, tower wagon, etc. between site and station for quicker restoration.
- 6) Ensure that the log diary at the site is maintained properly with details and that the Field telephone is manned.
- 7) Produce public witnesses and advise SP and DM in time, issue press notification in local press when advised by PCSO, in case of CRS Enquiry.

8.5 Liaison with Railway Board:

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



- (i) Movement of additional ARMEs 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 Headquarter of originating and terminating divisions.
 - Zonal Headquarter of originating and terminating Zonal Railway.
 - 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 organisation, State Govt. 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 in Railway Board.

8.6 PUBLIC RELATIONS:

Duties of the Public Relations Department are given in Chapter-13 (Media Management), under the heading 'Media Management'.

8.7 OPERATING DEPARTMENT:

Duties of Sr. DOM:

- 1) Ensure that ARME and ART reach the site without delay.
- 2) Plan for trains for the prompt transport of stranded passenger at site and clearance of passenger held up at other stations.
- 3) Plan for regulation of Passenger, Mail/Express trains, cancellation, diversion, and termination short of destination in consultation with HQrs.
- 4) Check that information regarding passengers, dead, injured (grievous and simple) is verified by Railway Doctor and approved by senior most officer at the site.
- 5) Details of the dead, injured-sustaining grievous or simple injury, their originating and destination station, ticket No. Hospitals to which sent for treatment and also particulars of next kith and kin to be obtained from the site and relayed to Emergency Control, PCSO etc.
- 6) See that chronological log of all items of information and action taken connected directly or indirectly with accident is maintained properly.
- 7) Keep liaison with adjacent Divisions, Site and Headquarters.

8.8 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 incharge will rush to the accident site immediately by ARME along with 08-10 doctors and 25-30 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 Hdqtrs. 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 mentioned in concerned Hospital DM Plan.

3. Duties of Team 'B':

- (i) Team 'B' will establish an Emergency Cell in the Casualty Unit of Railway Hospital.
- (ii) Contact adjoining divisions and organise movement of 2 more ARME to accident site, one from each end.
- (iii) Contact local hospitals (Railway/Govt./Private) near the accident site to and ask them to rush their road ambulances along with necessary medical team to the accident site immediately.
- (iv) Contact local hospitals (Railway/Govt./Private) near the accident site to keep them 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 WCR Web Site on Railnet at 10.150.2.19. Details of name, address, telephone No., facilities available etc. can be collected from this.
- (vii) Arrange to send the following in the 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end:
 - As many more medical teams as possible,
 - Adequate number of Safaiwalas, other health workers,
 - Members of St. JAB, 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-cumroad, 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:
 - Body bags.
 - Polythene covers for dead bodies. 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.

Duties of CMS/Medical Officer:

- 1) Collect all staff that can be spared and proceed to site. Take necessary equipment from the hospital that can be quickly get together whilst waiting for ARME:
- 2) Arrange for a message to be sent to his senior Officer.
- 3) Report his time of arrival to the SM on duty.
- 4) Rough notes are recorded at the site of the accident but very detailed confidential notes including X-ray reports of the injuries sustained should be kept, after arrival at the hospital or health units.
- 5) Make a note in respect of the log of events and action taken.
- 6) Ensure that a qualified person accompanies the ARME etc.
- 7) Write Injury report on the prescribed form for each case of injury. List of dead/injured/nature of injury to be advised immediately from the site.
- 8) Submit reports indicating the progress of injured including those receiving treatment at non- Railway Hospitals, to the MS/ DMO/ CMO daily during the first week and weekly thereafter.

8.9 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 authorised for withdrawing sufficient money from station earnings before proceeding to site.
- (iii) Similarly, CCM along with other HODs and other commercial officers from Hdqtrs. will proceed to accident site.

1. Transportation of men and material to accident site:

- (i) As soon as the ARME/ART siren sounds, as many as possible TTEs/TCs and licensed porters in uniform should be collected together and rushed to the accident site either by ART or first available means. However, ART/ARME should not be detained on this account.
- (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.
- (iii) The 2nd and 3rd Special trains carrying backup logistic support to accident site, from each end, can send more TTEs/TCs. 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 as many as possible 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, provision for making pooories, 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 nominations of catering agencies both departmental and private for rushing to site. This should be available in Divisional DM Plans.

2. Helpline Enquiry Booths at stations:

(a) General:

(i) Helpline Enquiry Booths within WCR would be opened as below:

- Originating and destination stations of the accident involved train.
- All junction stations within the jurisdiction of WCR falling on the route of the train.
- Divisional Hdqrs.
- Zonal Hdqrs.
- Any other station as may be decided.

(ii) 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 Hdqrs. of originating and terminating divisions
- Zonal Hdqrs. of originating and terminating Zonal Railways.
- Any other station as may be decided.

(iii) All Helpline Enquiry Booths shall have DOT Telephones with STD, dedicated help line No. 1072. Railway Telephones with STD, fax machine, photocopies and a PC with Internet connection.

(iv) Computer literate Sr. supervisors of commercial deptt would man Helpline Enquiry Booths. on round the clock basis.

(v) Helpline Enquiry Booths within the accident-affected division should keep in touch with the Divisional Emergency Cell.

(vi) Divisional Emergency Cell will collect updated information regarding all aspects of the accident from the UCC and pass on the same to:

- a) All Help line Enquiry Booths within the division.
- b) Emergency Cells of other divisions of WCR.
- c) Hdqrs. Emergency Cell & HQ Disaster Management Cell.

(vii) 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.

(viii) Similarly, Helpline Enquiry Booths outside the accident affected division, but within WCR jurisdiction should keep in touch with Divisional Emergency Cell of their respective divisions.

(ix) Headquarters' 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 division of WCR,
- Emergency Cells opened on originating and terminating Zonal railways Safety Directorate's Emergency Cell in Railway Board.

(x) Helpline Enquiry Booths should not contact the accident site or the UCC directly.



(b) Accident details to be made 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.
- (vii) For this purpose Computer printout of E-Mail received should be taken out and displayed at number of places at the station.
- (viii) 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.
- (ix) 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 hours 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 stoppage 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 WI who should be deputed at Helpline Enquiry Booths.
- (v) Details of other trains that were scheduled to run on the accident affected section, but have been:
 - Delayed, - Rescheduled,
 - Regulated, - Short terminated,
 - Diverted, - 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 Rescheduled,
 - Regulated, Short terminated,
 - Diverted, 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.

3. Duties of Sr. DCM:

- 1) Ensure that drinking water, tea and snacks are promptly supplied.
- 2) Take charge of the custody of luggage of the injured persons.
- 3) Luggage of the dead passengers should be deposited with the Railway Police after proper records and acknowledgment.
- 4) Issue advice to the next of kin of the injured and dead and furnish details to control office.
- 5) Arrange for Ticket collectors, Porters and Vendors.
- 6) Arrange for ex-gratia payment as per rules.
- 7) Arrange for refunds to passengers.
- 8) Assist the stranded passengers during transshipment.
- 9) Arrange inventory of the parcels damaged and advise the CCM (FM).
- 10) Arrange buses for stranded passengers and keep record of the buses destination wise with the number of passengers.
- 11) Provide the Railway doctors with assistance of Ticket collectors/Porters. Compile the figures of injured and dead from all sources.
- 12) Issue advice to the Control Office/Stations for issue of free passes to the next of kin of the dead and injured.
- 13) Keep in touch with the progress of patients in hospitals and increase the ex-gratia payment suitably in case simple injuries turn grievous or patients and ex-gratia payment for grievous injuries later on die in the hospital.

4. Duties of DCM & ACM:

- 1) Send sufficient Ticket Collectors, Porters, and RPF to the site.
- 2) Arrange drinking water, tea snacks quickly.
- 3) Arrange for refund at important stations.
- 4) Issue press handouts after prior approval of the DRM.
- 5) Open Enquiry offices with proper staff at important stations.
- 6) Arrange for buses if required.
- 7) Arrange for reservation of stranded passengers by advising the stations concerned and CCM (G) where Other Railways /Divisions are involved.
- 8) Arrange for labour for loading and unloading of luggage, parcels & goods.

8.10 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, officers from HQ will proceed to accident site.

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.



- (ii) In addition to above, Brake Down Special should be sent from other base stations within WCR, 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.
- (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.
- (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 centres can be opened up simultaneously.

2. Duties of Sr. DME:

- 1) Supervise working of cranes and clearance/rescue operation.
- 2) Ensure that Speedo graphs, engine repair Books etc. are seized/sealed.
- 3) Note down observations, make arrangements to record measurements if loco is involved in accident. If it is not possible for all types of measurement to be taken on the spot then these should be taken in the shed. All relevant records should be sealed in shed.
- 4) Record the details regarding brake power and other aspects of Rolling stock as per prescribed Performa.
- 5) Have the joint measurements of the rolling stock taken.
- 6) Check the fitness of the stock supposed to move from the site.
- 7) Assist in clearance/rescue operation.

8.11 SECURITY DEPARTMENT:

- (i) Sr. DSC will proceed to the site by ARM E along with maximum number of RPF personnel, only one officer will stay back at divisional Hdqrs.
- (ii) Similarly, officers from HQ will proceed to accident site. 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 in 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 organisations and the like at the earliest.
- (iv) Divisional Security Control shall get reinforcement from neighbouring posts/outposts, reserve line, divisional headquarters or Zonal reserve and send them by the ART. If they could not be sent by the ART then the 2nd and 3rd Special trains carrying backup logistic support to the accident site, from each end, should definitely send them.
- (v) In case any RPF 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 headquarters 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 Km) and poles for segregating the affected area.
 - 4 loud speakers for making announcements.
 - 10 stretchers and first aid equipment.
 - 10 wireless 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.

3. Duties of Sr. DSC (RPF):

- 1) Post adequate number of RPF staff at the site of accident and at any other place where assistance from his department may be required.
- 2) Ensure security of passengers' belonging and security of parcels, damaged goods and parcels vans etc.

8.12 ELECTRICAL DEPARTMENT:

- i) Sr. DEE(P) as well as ADEE(P) should proceed to site of accident. DEE(P) will be available in Divisional Control Office for providing backup support.
- (ii) Sr. DEE/TRD as well as ADEE/TRD should proceed to site of accident. DEE/TRD will be available in Divisional Control Office for providing backup support.
- (iii) Similarly, officers from headquarters will proceed to accident site.
- (iv) Main responsibility of Electrical Department will be regarding site illumination and OHE.
- (v) Maximum number of electrical staff should be send by the 2nd and 3rd special trains for installation and operation of electrical equipment.
- (vi) Officers staying back in divisional headquarters 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.

1. Duties of Sr. DEE (Power):

- 1) In case of fire in coaches, arrange to immediately collect/record evidence of passengers.
- 2) Jointly examine the coach to ascertain the cause and damage.

2. Duties of Sr. DEE (TRD):

- 1) Arrange for adequate number of OHE breakdown staff, tower wagon and proceed to the site of accident by the quickest available means.
- 2) Ensure that OHE is made dead and OHE is slewed as required.
- 3) Arrange and supervise restoration of OHE, expeditiously.
- 4) Record all relevant information concerning the accident.

3. Duties of Sr. DEE (TRO):

- 1) Where Electrical Locomotive is involved, call the relief train, if required, with adequate number of breakdown staff and proceed to the site by quickest available means.
- 2) Depute officer in the control office.
- 3) Note down joint observation regarding the loco.
- 4) Ensure that measurements of the loco are taken on the spot /wherever possible otherwise in Loco shed.
- 5) Ensure that records for maintenance of engine repairs are sealed in the shed.
- 6) Ensure prompt and sufficient arrangements for clearing the line.

8.13 SIGNAL & TELECOMMUNICATION DEPARTMENT:

- (i) Sr. DSTE as well as ADSTEs should proceed to site of accident. DSTE will be available in Divisional Control Office for providing backup support.
- (ii) Similarly, officers from headquarters will proceed to accident site.
- (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 alongwith ADSTE will carry the following to the accident site:
 - Satellite phone. FAX Machine.
 - Two 25W VHF sets alongwith 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, SIs 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 or 3rd special trains carrying backup logistic support to the accident site, from each end.
- (iv) All mobile phones along with chargers available with the Division should also be rushed to site for emergency use.
- (v) 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/ADSTE 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, INMERSAT phones provided at site and telephones provided at Helpline Enquiry Booths. This information shall be passed on to the Divisional Emergency Cell. All satellite telephone no. should be painted at Divisional control and Central Emergency Control.
- (iii) He should liaison with BSNL officials in the area for immediate provision of additional BSNL telephone at the accident spot, nearest station and at Helpline Enquiry Booths duly utilising assets under his disposal where required.
- (iv) Map of the division showing areas where cell phone connectivity is operative is available in Divisional DM plan. This should also be painted in divisional control.
- (v) Should have standing arrangement to 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 headquarters.

3. Communication at Headquarters and Divisional Emergency Cell:

- (i) Communication arrangements are required to be provided at West Central Railway headquarters' Emergency Cell immediately.
- (ii) 1 BSNL Telephones having ISD/ and three BSNL telephone having STD facility should be made available in the Headquarters' Emergency Control. Dynamic locking code of the telephone should be available with CHC/Emergency. FAX machine should also be 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 headquarters' Emergency Cell for use by Chief Emergency Officer. These should be temporarily transferred from officers' chambers.
- (iv) 2 Railway telephone numbers with STD facilities should also be made available.
- (v) 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 en-route of the affected trains.
- (ii) Location of these Helpline Enquiry Booths will be on Platform No.1 of their respective stations.
- (iii) One BSNL STD phone should be identified and kept pre-wired to the Helpline Enquiry Booths so that this can be energised at short notice. A especially dedicated no. of 1072 should also be provided at such identified station.
- (iv) Similarly, 2 Railway Phones should be identified and kept pre-wired to the Helpline Enquiry Booths so that these can be energised at short notice.
- (v) One FAX machine, Photocopier and PC with Internet connection (if feasible) and printer should also be provided at Helpline Enquiry Booths. These should also be kept pre-wired so that these can be energised at short notice.
- (vi) Stations at which such arrangements are to be made and telephones, which are to be utilised, should be identified by Sr.DSTE with approval of DRM.

5. Duties of Sr. DSTE:

- 1) Ensure that a detailed record is made of all evidence bearing on the accident so far as S & T and interlocking are concerned.
- 2) Preserve clues and seal the relevant equipment if required.
- 3) Restore the signalling and interlocking for normal working immediately.

8.14 ENGINEERING DEPARTMENT:

1. Rushing men and material to accident site:

PCE alongwith HODs and other JA grade officers will proceed to accident site by the special train organised for this purpose.

Sr.DEN/DEN concerned will proceed to the site of accident by ARME. In the absence of Sr.DEN(HQ), the next senior most Sr.DEN/DEN of the division will proceed alongwith the concerned DEN. In the absence of Sr.DEN/DEN of the section, Sr. DEN/DEN of the adjoining section will proceed by ARME.

It is expected that ADEN and Permanent Way Inspector of the Section would have already reached the accident site before arrival of ARME. In case, where the Permanent Way Inspector and ADEN are based at divisional headquarter, they should move alongwith staff by ART. At least, 2 SSE/Works and 1 SSE/Bridge should move along with their staff by the ART.

2. Mobilisation of work force:

- (i) Large nos. of workmen are required to reach the site of the accident. The Division shall arrange 500 nos. along with 10 PWIs and 10 Black Smiths. For this purpose, labour specials will be run from the specified destination as decided by the Divisional Emergency Control.
- (ii) 1/2 KM of rails, sleepers and fittings and one set of 1 in 12 and 1 in 8 1/2 turnouts are available in the ART. The mechanical and Operating Departments will ensure that part 'C' of ART (consisting of additional Engineering Material Wagons) shall follow the ART. The additional half km. of matching materials and one set of 1 in 8 1/2 and 1 in 12 turnouts shall be kept in the Track Depot of the Division. For loading of this material, 2 BRN and 2 BCN wagons should be immediately placed in the Track Depot. This 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, if available, will be moved by special train arranged by concerned division.
- (v) Sr.DEN/DEN in Divisional Emergency Control will request concerned authority (Army/State Govt. Department) for bulldozer/earthmoving machine in the area.

3. Duties of Sr. DENs/DENs :

- 1) Ensure joint measurements are taken and sketches of the accident site are accurately drawn out.
- 2) Ensure collection of adequate labor and material and their proper deployment for speedy restoration.
- 3) Depute one DEN/ADEN in control Office for planning, reinforcement of labour, material and staff.



- 4) Ensure that inspection notes and diary of ADEN, PWI, gang charts, maintenance records etc., are seized and secured.
- 5) Assistant other Departments in clearance of line and ensure that track is rendered fit and certified at the earliest.

8.15 IT DEPARTMENT:

The following should be arranged by Sr. EDPM/EDPM in HQ:-

- (i) COM's room, which will be used as Headquarters' Emergency Cell, should be provided with a 2nd PC.
- (ii) Both PCs should be connected to Railnet and the E-Mail addresses already configured into them should be activated.
- (iii) Similarly 2 PCs in divisional control office nominated for being used in Divisional Emergency Cell should also be shifted there.
- (iv) Both these PCs should be connected to Railnet and the E-mail addresses already configured into them should be activated.
- (v) PCs in various Helpline Enquiry Booths at different stations should all be made functional, connected to Railnet and made ready for receiving and sending E-mails.
- (vi) Following information should be uploaded on to West Central Railway's Website www.wcr.railnet.gov.in as quickly as possible by Sr. EDPM in association with PRO.
 - (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 station of the accident involved train.

8.16 Duties of Sr. DPO:

If required by the Divisional Railway Manager depute welfare Inspectors to assist the Medical Officer in taking down the names/ and addresses of the dead and injured and in shifting them to the hospital. Ensure that complementary passes are issued promptly.

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Chapter - 9



CHAPTER – 9

SOP on Fire Accidents in Running Trains (Passenger and Goods)

9.0 PREAMBLE :

The fire incidences in trains are among the most serious disasters to human lives and property of Indian Railways. Fire in a running train is more dangerous than a static one, because the fanning effect may spread the fire very quickly to other coaches. Thus, a train fire is different from a fire in other places in the manner in which it breaks out, grows and spreads and the damages it causes. In most of the cases, relief reaches the burning train when the carriages have completely burnt and passengers died or badly burnt. Under such situation, role of on board staff and train crew becomes vital.

Hence, there is a strong need to formalize Standard Operating Procedure (SOP) to combat fire accidents in a running train, promptly and efficiently. Hence, objective of this Standard Operating Procedure is to provide an overview on fire, precautions to be taken in fire fighting and fire preventing precautions laid down in various Indian Railway Manuals/Codes. Importance and role of on board railway staff in case of any fire incidence in a running train, has been suitably envisaged. It is expected that this SOP will enable all railway men to be more conversant with their role in this context and their consciousness and prompt action will result in minimizing fire incidences and fast action in controlling spread of fire in a running train.

9.1 Scope & Necessity of SOP on Fire Accidents:

In case of fire on train, typical time available for rescue is a few minutes before smoke fills up and passengers start getting disoriented. Smoke (toxic/non-toxic) can cause suffocation and loss of consciousness in two minutes. Fire in personal clothing causes loss of consciousness in 10-15 seconds and Death or incapacitation (followed by death) can happen in five minutes. A fire in train destroys the train carriage(s) completely in a few minutes. Moreover, passengers sometimes jump out of a running train actually caught fire or even on smelling smoke/rumour of fire in the running train, resulting in increased casualties.

Preventive measures in respect of design & furnishing material of coaches, provision of fire fighting logistics in coaches and locos, alertness of Commercial and RPF staff at railway station and in Parcel units, alertness of on board staff and passengers on the train can play a vital role in minimizing the fire incidences in trains and in minimizing loss of human lives and railway property in case of fire in a running train. As such, basic training of fire fighting, first aid and rescue operation to LPs, Guards, on board railway and contractor's staff can be of huge relief in saving lives of stranded passengers.

9.2 Characteristics of a Train Fire :

- (i) A train consists of long narrow vehicles coupled with each other with limited exits.
- (ii) High traveling speeds prevent quick escape and assist rapid spread of fire.
- (iii) Wide range of track conditions, including confined sections such as bridges, tunnels, ghats, etc., may make it difficult for passengers to get off the vehicle easily in times of emergency.
- (iv) Restriction in movement of passengers and fast spread of fire aggravates the situation.
- (v) A large number of passengers traveling on trains have to be attended to by a small team of on board staff.
- (vi) Even a delay of few initial seconds due to inadequacy of direct communication with the crew can be devastating.
- (vii) Smoke emission in a confined place may also lead to panic.



9.3 Classification of Fires:

Fires are classified according to the type of fuel/material that is burning. If wrong type of fire extinguisher is used for extinguishing the fire, it might make matters worse. For all practical purposes the basic types of fires can be grouped into following four cases;

- (i) **Class A Fires:** Fires involving combustible materials of organic nature, such as wood, paper, rubber and many plastics, etc., where the cooling effect of water is essential for extinction of fires.
- (ii) **Class B Fires:** Fires involving flammable liquids. Petroleum products, or the like, where a blanketing effect is essential.
- (iii) **Class C Fires:** Fires involving flammable gases under pressure including liquefied gases, where it is necessary to inhibit the burning gas at fast rate with an inert gas, powder or vaporizing liquid for extinguishment. Fires due to electrical fault in energized electrical equipment (as long as it's "plugged in" or supply ON) also comes in this category.
- (iv) **Class D Fires:** Fires involving combustible metals, such as magnesium, aluminium, zinc, sodium, potassium, when the burning metals are reactive to water containing agents, and in certain cases carbon dioxide, halogenated hydrocarbons and ordinary dry powders. These fires require special media and techniques to extinguish.

(Ref.: Indian Railway Manual of AC Traction Maintenance & Operation Vol.-I, 1994)

9.4 Precautions to be observed in case of fire:

- (i) **Class A Fires:** Fires of this type can be readily extinguished by water or a solution containing large amount of water due to the cooling and quenching effect of water. The following precautions should be taken to prevent Class A Fires-
 - a) Glowing cigarette butts and matches shall not be thrown into waste baskets, oil rag bins, or other places of fire hazard.
 - b) Smoking and use of open flames shall be prohibited in oil storage rooms, battery rooms and places where combustible material is kept.
 - c) High standard of cleanliness shall be maintained. Waste material, oily waste or rags etc. shall be removed from the premises daily and suitably disposed of.
 - d) Trees and rank vegetation shall not be permitted to grow in the neighbourhood of sub-stations, switching stations or other buildings. Roofs of buildings and the whole area of the sub-stations and offices shall be kept clear of dry leaves, packing cases or other dry combustible material.
 - e) Before starting welding and cutting operations, it shall be ensured that sparks arising there from do not lodge in wood-work or ignite other combustible material in the area.
 - f) While installing heating device, hot water pipes, etc. suitable clearances from the combustible material shall be maintained.
- (ii) **Class B Fires:** For extinguishing these fires some blanketing agent is required such as foam which deprives the fire of its oxygen requirement. If water is used, there is greater danger of the fire spreading.

The following precautions are required against Class B fires.

- a) Cable trenches inside stations containing cables shall be filled with sand or pebbles or covered with non-inflammable slabs.
- b) Oil-filled containers and equipment in receiving stations, sub-stations, buildings, store rooms, etc. shall be so located that fire and smoke from oil is not likely to do any damage.



- c) Concrete dykes or floor drains and loose rock-filled pits shall be provided near oil storage rooms and oil filled equipment to prevent spread of spilled oil.
 - d) Empty oil drums, boxes or other combustible material shall never be piled near storage oil tanks and oil-filled equipment.
 - e) Petroleum containers shall be labelled and kept securely stoppered.
 - f) When a vehicle is re-fuelled or petrol transferred from one container to another, no smoking or open flames shall be permitted in the vicinity.
 - g) Places where paints, varnishes, lacquers, thinners, etc. are stored or used shall be kept scrupulously clean.
- (iii) **Fires in Electrical Equipment:** Fires that occur in electrical equipment or in equipment close to electric circuits preclude the use of water spray or foam type extinguishers. Such fires are extinguished by employing some insulating agent like sand, carbon tetra-chloride or carbon dioxide or halon type fire extinguishers.

The following precautions are required against such fires :

- a) Electrical equipment shall be installed, operated and maintained properly and in such a manner as to eliminate arcs due to poor contacts in switches and fittings, damaged insulation, crossed wires, opening of switches carrying large currents, etc.
- b) Leakage on and/or overloading of circuits with consequent heating up of wiring must be guarded against.
- c) Motors shall be equipped with over-current and under-voltage protection to prevent excessive heating.
- d) Insulation strength of the equipment and cable shall be checked periodically.
- e) Temperature and loading conditions of the equipment shall be recorded and studied.
- f) Electric lamps shall not be surrounded by or laid on combustible material.
- g) The vicinity of cables should be kept clear of oily dirt or other combustible material.
- h) Battery rooms shall have no loose connections and there shall be no sparking devices e.g., bells, buzzers, relays, fuses or switches in the room. Smoking shall be prohibited and rubbish and other combustibles shall not be permitted to accumulate in the battery room.
- i) Metal parts of oil tanks, electrical equipment and buildings shall be adequately bonded and earthed to prevent fires by lightning and static electricity. The earth resistance shall be checked periodically.
- j) Flammable gases and materials shall not be stored near electrical equipment.

(Ref.: Para 10602 of Indian Railway Manual of AC Traction Maintenance & Operation Vol-I, 1994)

9.5 Probable Cause of Fire in Railway Coaches:

- (i) Carrying inflammable goods like stove, gas cylinder, kerosene oil, petrol, fireworks, poll posters, etc. in passenger coaches.
- (ii) Making/using fire near paper, wood, petrol or such other inflammable articles.
- (iii) Throwing waste material outside dust bin, near door, non-removal of garbage from pantry cars/coaches.
- (iv) Bad habits like carelessly throwing lighted match sticks, cigarette butts and Bidi butts etc.
- (v) Leakages/Blasts of pantry gas cylinders.

- (vi) Gas regulator, flame arrester and pressure gauge in pantry car are not in proper working order.
- (vii) Improper storage of inflammable materials like newspapers, edible oil etc. in pantry cars.
- (viii) Insertion of cigarette butts, Bidi butts, Gutkha wrapper etc. in fan base, fuse distribution board, roof openings and ventilators etc.
- (ix) Sabotage.
- (x) Mishandling/Careless use of pantry equipment by pantry car staff.
- (xi) Poor maintenance of electrical equipment and short circuits.
- (xii) Loose or temporary connection, hanging wires/exposed joints etc.
- (xiii) Defects in locomotive/traction unit causing fire.
- (xiv) Use of open fire near trains carrying petrol/gas/other flammable material.

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. It is therefore imperative that all on-board Railway officials need to have basic knowledge on fire, firefighting methods, handling of Fire Extinguishers and operation of Fire Suppression system through various training programs so that they can react immediately to put-off / extinguish fire and rescue passengers / save the railway property.

For quick and better firefighting and rescue management, an Instant Action Team comprising of all or some of the following personnel available on the train may be immediately formed:

9.6 Instant Action Team:

- (i) Train crew (Loco pilots, Guard).
- (ii) Train Superintendent, TTEs and other commercial on board staff.
- (iii) AC Coach attendants/mechanics, Power Car staff, other electrical on board staff.
- (iv) TXR staff, On-board Housekeeping Staff (railway and / or contractor).
- (v) S&T on board staff.
- (vi) RPF/ GRP staff.
- (vii) Pantry car (railway and / or contractor).
- (viii) On board Railway employees either on duty or on leave traveling as passengers.
- (ix) Doctors traveling by the train.
- (x) Passengers traveling on the train who volunteer for rescue and relief work
- (xi) Railway staff working at site or available near the site of the fire incident.

9.7 Role of members of Instant Action Team:

The members of instant action team should carry out the following by distributing the work amongst them:

- (i) Do not panic.
- (ii) Pull the Alarm Chain and stop the train immediately. Inform the Loco pilot and Guard of the train.
- (iii) Inform all concerned about the fire and seek their assistance in extinguishing the fire. Do not wait for others to arrive or help to arrive. Start with rescue and fire controlling immediately.
- (iv) Report it to the nearest station/control/fire station. (fire services : 101, it can be dialed by mobile also), Disaster Help Line No.138 & Security Control No.182.
- (v) Open emergency windows/brake glasses for evacuation of the passengers.

- (vi) Evacuate passengers to coaches which are away from fire through vestibules; if fire is not extinguished. After complete evacuation, rolling shutters of coaches on fire to be closed to contain spread of fire.
- (vii) More people expire due to suffocation from smoke rather than due to actual burning. Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils. This reduces the smoke inhalation & subsequently its bad effects.
- (viii) Insist that passengers should save themselves first and not to bother about their luggage which can be retrieved later on.
- (ix) Advise passengers to remain calm and not panic.
- (x) Isolate the affected coaches/wagons from other coaches/wagons by decoupling both Mechanical & Electric couplers. Create and maintain adequate distance between the affected coach and other coaches so that fire does not spread to other coaches due to proximity.
- (xi) Locate fire extinguishing equipment viz, fire extinguishers, water bucket with water/sand, etc and use these to extinguish fire. Use water from coaches to extinguish fire.
- (xii) Whenever alarm is triggered through Automatic Fire Detection system in coaches(Power car/ SLR, Pantry car & AC coaches) fitted with Fire detection System(Manual/Automatic), extinguish fire as per the instructions pasted in coaches.
- (xiii) Try and put out the very source of the fire before it becomes a big blaze.
- (xiv) Turn off Electrical Appliances. In case of fire from electricity, switch off the source.
- (xv) In case of the fire is discovered when the train is near the tank or a 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.
- (xvi) Provide wooden wedges to prevent roll back of isolated coaches and train as well. Train shall be protected by Loco Pilot and Guard at both ends according to the provisions of GR.
- (xvii) Loco Pilot to put flasher light of loco "ON" to attract attention of loco pilot of crossing train to stop his train and ask for assistance.

9.8 Safety Instructions and Role of various stakeholders:

- (A) Crew (Loco Pilot/Assistant Loco Pilot/Co-Pilot/Guard):
 - (i) Stop the train immediately and switch on the flasher light after observing fire or on receiving intimation about fire. Arrange to stop the train coming from other direction so as to pool help to tackle fire.
 - (ii) Loco Pilot & Guard will immediately inform the control directly by mobile telephone or talking to nearest Station Master on walkie-talkie about the incident of fire and preliminary details about the fire.
 - (iii) Guard of the train to arrange stretcher and first-aid box for providing assistance to the injured passengers.
 - (iv) Arrange for isolating the affected coaches from other coaches by decoupling both Mechanical & Electric couplers. The vehicle behind the one on fire shall be detached and the front portion of the train moved forward so as to prevent the rear vehicles catching fire. As soon as the front portion of the train has moved forward a sufficient distance, to secure the desired object, the burning vehicle shall be detached and the vehicles in front of it shall then be moved forward to a safe distance. If required hand shunting may be carried out by taking help of passengers & railway staff traveling in the train.



- (v) Provide anti rolling arrangements on isolated coaches and train as well by taking help of railway staff traveling in train & passengers.
- (vi) Report it to the nearest station/control/fire station, Civil police, RPF/GRP Control post through mobile telephone.
- (vii) Use available fire extinguishers, sand, loose earth, water, blankets, etc. to extinguish the fire and help passengers trapped in fire.
- (viii) Render first aid to injured passengers, by obtaining assistance of the railway staff, doctors and/or volunteers on the help of ambulance service, means available.
- (ix) If the fire cannot be controlled, inform the traction power controller through the emergency telephone or any other mode of communication to arrange the affected section of the over-head equipment to be made dead after isolating the affected coaches.
- (x) In case of fire in Freight train, in addition to action to be taken on relevant points above, the crew shall carry out the following:
 - a) The train will be controlled immediately and brought to the nearest station/yard in the loop line or yard line in consultation with the nearest station & section controller.
 - b) The affected wagon or wagons shall be separated from the rest of the train.
 - c) Provide anti rolling arrangement on the isolated wagons and train.
 - d) Guard and loco pilot shall try to extinguish the fire from nearby tank or water columns at stations.
 - e) Guard of the train should lodge a FIR, if required.
- (xi) In the event of fire on electric engine:
 - a) Loco pilot shall immediately switch off the circuit breaker and lower the pantograph and the train shall then be brought to a stop at once.
 - b) Loco pilots shall take necessary action to put out the fire, and the locomotive should be separated from the rest of the train.
 - c) If fire cannot be extinguished by the above means, driver shall advise TPC through Emergency telephone to arrange for OHE of the affected section to be switched off.
 - d) The Guard and any other staff available shall render all possible assistance to the Loco pilot in putting out the fire.
 - e) Ordinary fire extinguishers or water from a hosepipe shall on no account be used to extinguish fire on live wire or electrical equipment.
 - f) 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.
- (xii) In the event of a fire on a Diesel Engine:
 - a) Loco pilot shall immediately switch off the circuit breaker and shut down the engine and the train shall be brought to stop at once.
 - b) Loco pilots shall take necessary action to put out the fire, and the locomotive should be separated from the rest of the train.
 - c) The Guard and any other staff available shall render all possible assistance to the Loco pilot in putting out the fire.
 - d) Fire extinguishers of approved type shall be provided on each diesel locomotive when these are turned out from the home shed. The Foreman/CWS in-charge of the shed shall inspect the fire extinguishers and ensure that these are in good working condition.



(xiii) In the event of fire on EMU/MEMU: In addition to above mentioned action, following also to be carried out:

- a) The train shall then be brought to a stop at once.
- b) The Loco Pilot/Motorman shall immediately switch off the circuit and lower the pantograph.
- c) The Guard shall give all possible assistance to the Loco Pilot in putting out the fire, isolate the other coaches from the affected coach and help the passengers.

B) Train Superintendents/TTEs and other commercial staff:

- (i) Pull the Alarm Chain and stop the train immediately. Inform the crew of the fire incident.
- (ii) Observe any alarm or buzzer from smoke detectors provided in AC coaches. In case of any buzzer from smoke detectors, find out where smoke or fire is from.
- (iii) Report to the Commercial Control immediately & also dial 101 to call fire service people by giving the location as Km No. & Train No. Also call 138 Helpline to arrange rescue & relief on war footing.
- (iv) Use fire extinguishers available in coaches to extinguish fire or use water available in coaches.
- (v) Evacuate passengers to the adjacent coaches which are away from the fire through vestibules, if fire is not extinguished. After complete evacuation, rolling shutters of coaches on fire to be closed with the help of available railway men and passengers to contain spread of fire.
- (vi) Advise passengers to take a cloth, wet it in their drinking water and cover their nostrils. This reduces smoke inhalation and subsequently its bad effects.
- (vii) Insist that passengers should save themselves first and not to bother about their valuables/luggage which can be retrieved later on.
- (viii) Take assistance of volunteers from passengers, travelling Railway employees, doctors on trains, on board contractor staff etc. in rescue operation.
- (ix) Call the doctor after checking the charts & advise him about the passengers affected by fire.
- (x) Take the help of other railway staff including RPF and GRP and Samaritan passengers to help the doctor in providing first aid and other aid to the affected passengers.
- (xi) Arrange stretcher and first aid box for the injured passengers.

C) Pantry Car Staff:

1. In case of fire in pantry car:
 - a) Immediately pull chain to stop the train.
 - b) Inform TTEs etc of the fire incident and seek assistance.
 - c) Immediately switch off all electrical appliances and isolate them electrically.
 - d) Close all cooking gas appliances in the pantry and remove the gas cylinders into the open away from fire.
 - e) Protect the inflammable material available at pantry car.
 - f) Extinguish fire by using fire extinguishers available at pantry.
2. In all other cases of fire, follow the instructions laid down above for instant action team.
3. Provide necessary assistance to TTEs and other staff in extinguishing the fire and extricating the trapped passengers.



Important Dos & Don'ts for Pantry Car staff:

DOs:

1. Firefighting equipment available in the pantry car should be in working condition and placed in proper position.
2. Ensure availability of safety certificate of Pantry Car from both Mechanical and Electrical branch for every departing train.
3. Checking of expiry of Fire extinguisher in every three months.
4. List of staff (with photograph) of Pantry Car should be available with Pantry Car Manager.
5. Every Staff of Pantry car should have proper Photo I card.
6. The pantry car staff of the private contractors in the trains should be trained in first-aid and aware of the procedure of handling disasters.
7. Private operators connected with pantry car services should certify that their on board staff is trained in First aid is conversant with other medical techniques.
8. Knowledge of Pantry car staff in using firefighting equipment should be checked by railway officials in every three months.
9. Fire alarm system should be in working condition.
10. Kitchen appliances should have ISI certificate.

DON'Ts

1. Smoking should be prohibited in pantry car.
2. Throwing of oil soaked jute/cloth carelessly.
3. Throwing of burning match-stick carelessly.
4. Do not keep explosive materials along with combustible materials in pantry car.
5. Wiring in the pantry car should not be loose or hanging.
6. Unauthorized entry in pantry car should be prohibited.

(Ref: Adviser/Safety Rly.Bds. L.No.2011/Safety-I/18/1 dtd. 24.05.2011)

D) C&W staff and on board Housekeeping staff:

- (i) Open the doors of both sides of coaches.
- (ii) Open Emergency Windows for Evacuation of the passengers.
- (iii) Evacuate the passengers to the adjacent coaches which are away from the fire through the vestibules; if the fire is not extinguished. After complete evacuation, close the rolling shutters of coaches on fire to contain the spread of fire.
- (iv) Help the train crew in physically isolating/separating the affected coaches from the remaining train.
- (v) Follow the instructions laid down above for instant action team
- (vi) Provide necessary assistance to TTEs and other staff in extinguishing the fire and extricating the trapped passengers.

E) AC Coach Maintenance staff:

- (i) Immediately isolate the affected coach/coaches electrically.
- (ii) Break the box and take out hammer to break glass panes of AC coaches so that fresh air flows in and smoke goes out.
- (iii) Follow the instructions laid down above for instant action team.
- (iv) Provide necessary assistance to TTEs and other staff in extinguishing the fire and extricating the trapped passengers.



F) Power Car staff:

1. In case of fire in power cars:
 - a) Stop train by pulling alarm chain immediately.
 - b) Inform guard/driver/TTEs etc of the fire incident and seek their assistance
 - c) Shut down the power car engines and disconnect power supply
 - d) Use fire extinguishers and fire ball provided in engine room in case of fire in power car to extinguish fire.
 - e) In case fire is not controlled, detach power car from the train in consultation with crew and guard and taking help of Railway men and fellow passengers.
2. In all other cases of fire, follow the instructions laid down above for instant action team.
3. Provide necessary assistance to TTEs and other staff in extinguishing the fire and extricating the trapped passengers.

G) RPF/GRP:

- (i) Pull alarm chain to stop the train.
- (ii) Rush to the affected coach/coaches immediately and provide necessary assistance to TTEs and other staff in extinguishing the fire and extricating the trapped passengers.
- (iii) Follow the instructions laid down above for instant action team
- (iv) In case doctor/doctors are available, necessary assistance will be provided to ease working of doctor.
- (v) Separate the area of incident by establishing temporary barriers and ensure that the on lookers and spectators do not enter the affected area to disturb the scene or hamper the rescue operations.
- (vi) Baggage of passengers should be isolated and protected and should be taken care of, till they are handed over to claimants or taken over by Railway authorities.
- (vii) RPF personnel should respond to any call for assistance to rescue victims and transport them to the nearest hospital.
- (viii) Check, save and record the evidences/clues of the fire.
- (ix) Help Guard in lodging of FIR.

H) Station Master at Station or Nearby Station of Fire Incident:

- (i) Inform the nearest Fire Brigade office of the location of the incident and requisition their services.
- (ii) Advise the section controller and/or TPC of the fire incident indicating the affected section and/or for OHE isolation.
- (iii) Inform the local hospitals and requisition the services of the doctors and paramedical staff as per the requirement.
- (iv) Inform all officers and supervisors of all departments available at the station.
- (v) The controlling station master shall proceed to the site with staff of various departments to help in rescue and relief operations.
- (vi) Station master shall not allow any train to enter on the adjacent track of the affected section.
- (vii) After clearance of affected train from the section, advice section controller.
- (viii) On receipt of advice from section controller allow the train service on the section on releasing the emergency power block and OHE power is switched on in the section.



I) Section Controllers:

- (i) Section controller, on receipt of fire incident, shall advise adjacent stations/station masters to regulate the train services in the affected section.
- (ii) Depending on the requirement, order ART/ARME.
- (iii) Advice traction power controller to switch off OHE power supply in the affected section if required.
- (iv) In case of fire in Freight train, train will be controlled immediately and brought to the nearest station/yard in the loop line or yard line in consultation with Dy.CHC/CHC.

J) Traction Power Controllers:

- (i) The Traction power controller shall switch off the OHE power supply of both the lines of relevant affected section on the advice of Section Controller.
- (ii) Advice section controller in writing that OHE power supply has been switched off in the affected section.
- (iii) On advice of section controller, TPC shall switch-on the OHE power supply in the affected section.

K) Role of Dy.CHC/CHC:

- (i) Inform the Fire Brigade office of the location of the incident and requisition their services.
- (ii) Inform casualty of Divisional Hospital to inform Doctors.
- (iii) Inform the local hospitals and requisition the services of the doctors and paramedical staff as per the requirement.
- (iv) Promptly inform all the concerned officers.
- (v) Order ARME/ART immediately & arrange Diesel/Electric power accordingly with Crew & Guard.
- (vi) Hooter to be sounded in the Divisional control and in the Loco shed.
- (vii) Promptly inform C&W, Engineering, Loco, Commercial, Security, TRD Controllers.
- (viii) In case of fire to a passenger carrying train, Civil authorities should be promptly advised.
- (ix) In case of fire in Freight train, that train will be controlled immediately and brought to the nearest station/yard in the loop line or yard line.
- (x) Fill the proforma about the accident as applicable and advise all concerned.

L) Action to be taken 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.

M) Handling of injured passengers:

- (i) Building up confidence of injured passengers by suitable advice is of great importance.
- (ii) First aid should be rendered to the injured passengers.
- (iii) Ordinarily give nothing ORALLY to injured one, but if medical treatment is delayed more than 4 hours, give ORS drinks preferably bio-carbonated soda.
- (iv) In serious case remove the patient quickly to hospital as the injured may require an anaesthetist, medical soothing.

N) 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 Station intimating that Petrol or any other inflammable liquids, acids or gases, have caused the fire.

O) Fire caused 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) The 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 department officers concerned.
- (vii) Pending the visit of the Chief Controller of Explosives/his representative, the wreckage and debris shall be left undisturbed except to save lives.
- (viii) After getting information from the Chief Controller of Explosives that he does not wish any further investigation, the restoration work may be commenced.

P) In case of fire on track:

- (i) Guard or Driver who notices fire on track must stop the train and extinguish the fire. The guard shall advise the nearest P.Way staff if any, and the SM at the next station.
(Ref: Para 611 of Accident Manual of WCR, 2004)

Q) In case of Acid Wagon catching fire:

- (i) When an acid wagon catches fire, the fire must be extinguished by using sand and water etc. It should be seen however, that water is not used if the type of acid or corrosive is such that would cause further damage by chemical reaction.

- (ii) In all cases of fire in wagons containing acids, corrosives etc., the guard or the Station Master or any other supervisory official in charge of the situation must make notes of the condition of containers, packing (both inside and outside) labelling of containers, manner of loading in the wagon, quantity filled in each container and affixing of Dangerous label on the wagon whether found in accordance with the prescribed manner as laid down for this commodity in the Red Tariff.
- (iii) Whenever there occurs any accident connected with any consignment of acids and other corrosives and attended with loss of life or grievous injuries to persons or serious damage to property, or of a description usually attended with such loss, injuries or damage, the person for the time being in-charge of the consignment must forthwith advise the officer in-charge of the nearest police station and the Chief Inspector of Explosives in addition to the departmental officer concerned.

(Ref: Para 615 of Accident Manual of WCR, 2004)

9.9 Booking and carriage of parcels containing dangerous goods:

- (a) It will be the personal responsibility of the Station Master to ensure that the rules and conditions laid down in the I.R.C.A. Red Tariff for booking and carriage of explosives and other dangerous goods are carefully complied with by the staff.
- (b) Negligence to observe rules and safety precautions in loading, unloading, storage and conveyance of explosive and other dangerous goods, should be viewed seriously. Inspecting officials, while at stations should examine Parcel Clerks and Porters/labour employed for the handling of this traffic to test their knowledge of the subject and to create an awareness in them for bestowing utmost care in the handling of explosives and other dangerous goods. A register should be opened at each station to obtain acknowledgement of the staff concerned in token of their having understood the rules and instructions issued from time to time in respect of explosives and other dangerous goods and to give an undertaking that the precautions required to be taken in dealing with such traffic will be rigidly observed. In case the Porters/labourers are illiterate, the Station Master and the Commercial Inspector should explain to them the implications and need for observance of the rules, and sign a certificate in the register in token of having done so.

9.10 Conveyance of explosives and other dangerous goods:

- (a) Attention of the staff is drawn to the rules, for conveyance of explosives and other dangerous goods, laid down in the I.R.C.A. Red Tariff. These rules and any other instructions issued from time to time must be strictly observed in every detail by the staff who have to do the booking, handling and delivery of such classes of goods. Instructions contained in Para 930 regarding booking and carriage of parcels containing explosives and other dangerous goods also apply in the case of consignments booked by goods train.
- (b) The pictorial labels for explosives and other dangerous goods prescribed for use on packages, are available for sale in the public at the Headquarters and Divisional Offices of the railway and at such other stations as may be notified by individual railways from time to time. The sale proceeds of these labels should be accounted for under the 'Miscellaneous Receipts'.

(Ref.: Para 1462 of Indian Railway Commercial Manual Vol-II, 1991)

9.11 Fire Fighting Logistics:

A) Fire Fighting Arrangement in Coaches/Trains:

Guard-cum-Brake Van, AC coaches and Pantry Cars in all trains are provided with portable fire extinguishers to cater for emergencies due to fire accidents. AC coaches of Premium Trains like Humsafar, Duranto, Tejas and Rajdhani Express Trains are being provided with smoke and fire detection systems which give alarm in case of fire or smoke. The pantry and power cars are being provided with smoke and fire detection as well as suppression systems. The suppression systems provided may be manual or automatic.

B) Fire Extinguishers:

The fire extinguishers provided in railway coaches are of Dry Chemical powder (DCP) type. Dry chemical fire extinguishers put out fire by coating the fuel with a thin layer of dust. This separates the fuel from the oxygen in the air. These types are suitable for tackling petroleum, gas, electrical fire and controlling fires of textile fibres.

The various types of fire extinguishers suitable for the following class of fires is mentioned below:

- a) Class A Fires - Water expelling type extinguishers.
- b) Class B Fires - Foam, dry powder, vaporizing liquid, carbon dioxide extinguishers.
- c) Class C Fires - Dry powder and carbon dioxide extinguishers.
- d) Class D Fires - Extinguishers designed for expelling special dry chemical powder.

(Ref.: Para 10602 of Indian Railway Manual of AC Traction Maintenance & Operation Vol.-I, 1994)

C) How to use a DCP type Fire Extinguisher:

1. Carry to the place of fire and keep it upright.
2. Remove the safety clip.
3. Strike the knob located in the cap.
4. Sealing disk of the cartridge gets broken and allows carbon dioxide gas to escape to the main shell and powder is pushed out.
5. Direct the stream of the powder at the base of the flame.
6. For effective result stand at about 1.5 to 2.5 metre near the seat of the fire.
7. Move forward with moving the nozzle rapidly from side to side in sweeping motion.
8. When using on outdoor fires, operate from the upwind side for effective spray.

D) Operation of Automatic/Manual Fire Suppression Systems in coaches:

1. The Operating Instruction is pasted by the side of the Suppression System and members of Instant Action Team should be well aware of.
2. In case of Manual Suppression System, whenever there is a fire / smoke inside the coach, sensor will activate smoke alarm which will give audio / visual signal at this stage, if required. Fire Suppression System can be activated by pressing manual activation switch.
3. In case of Automatic Suppression System, whenever there is a fire / smoke inside the coach, sensor will activate heat alarm which will give audio / visual signal and the Suppression System will automatically operate within 30 seconds.



4. If in case the system is not functioning, the suppression system can still be activated manually by pressing the lever in the nitrogen cylinder as detailed in the operating instruction pasted near the suppression system. Staff travelling should be trained to operate the system.
- (i) When reporting cases of fire on trains, the position of the vehicle on the train should be stated, also whether it was loaded or empty. When reporting occurrences of fire on trains or in station premises, SMs and others sometimes ascribe the fire to sparks from engine, or electric short circuit. Such statements must not be made unless these can be definitely substantiated.
- (ii) Whenever serious fire accident occurs in a coach / wagon, the SM / Control Office will send information immediately to the concerned officials of the, Forensic Laboratory which caters the area so as to enable their Scientist to attend the site of accident promptly for collecting clues / samples leading to the cause of the fire. The list of jurisdiction and headquarters of the Forensic Laboratories is given below:

S.No.	Name of Laboratory	Address	State
1.	State Forensic Science Laboratory Madhya Pradesh,	The Director State Forensic Science Laboratory Madhya Pradesh, MPSH 15A, Gopal Ganj, Sagar-470003. Phone: 0758-2267707.141-2301584.	Madhya Pradesh
2.	State Forensic Science Laboratory, Jaipur.	The Director State Forensic Science Laboratory Rajasthan, RPA Road, Nehru Nagar, Jaipur 302016. Phone: 0141-2301584.	Rajasthan

(Ref: Para 616 of Accident Manual of WCR, 2004)

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Chapter - 10



CHAPTER - 10

SOP ON COVID-19 PANDEMIC

10.0 SOP on Preventive Measures to contain spread of COVID-19 in Offices:

Salient features of the Standard Operating Procedure (SOP), issued by Ministry of Health & Family Welfare, to contain spread of COVID-19 in offices is as under:

10.1 Background:

Offices and other workplaces are relatively close settings, with shared spaces like work stations, corridors, elevators & stairs, parking places, cafeteria, meeting rooms and conference halls etc. and COVID-19 infection can spread relatively fast among officials, staffs and visitors. There is a need to prevent spread of infection and to respond in a timely and effective manner in case suspect case of COVID-19 is detected in these settings, so as to limit the spread of infection.

10.2 Basis Infection Control Measures:

Follow all Five Rules to Fight COVID-19:

1. Wear Masks.
2. Wash Hand Frequently.
3. Observe Respiratory Etiquette.
4. Maintain Social Distance.
5. Clean and Sanitize Workplace Frequently.

Basis infection control measures for COVID-19 include:

1. As the disease spreads mainly when a patient coughs, sneezes, talks or laughs, it is important for everyone to cover their mouth and nose with a mask in public. The mask has to be consistently worn and should be worn and taken off correctly.
2. For the same reason respiratory etiquette should be practised. It includes covering coughs and sneezes with the arm or elbow or with tissue that should be disposed of in a closed bin.
3. Frequent and thorough hand washing with soap and water for at least 40 seconds or with a sanitizer containing at least 60% ethyl alcohol or 70% isopropyl alcohol decreases the risk of getting the disease from contaminated surfaces. Hand washing with soap and water for at least 40 seconds is much better than using sanitizers.
4. Social distancing of at least 2 meters between people is a potential game changer in limiting the spread of COVID-19. A distance of 2 meters between people minimizes the risk of spread of COVID-19. WHO recommends at least 10 square meters of space around each worker.
5. The virus may also be present on frequently used surfaces that have been contaminated by a person with COVID-19. A worker may touch an infected surface and get infected. 1% freshly prepared Sodium Hypochlorite solution or a solution of more than 60% ethyl alcohol kills the virus.
6. A single measure alone is not sufficient to keep people safe. Wearing masks, maintaining social distance, washing hand frequently and proper and frequent sanitization, when practised together, keep people safe.



10.3 Specific Preventive Measures for Offices:

- ✦ Entrance to have mandatory hand hygiene (sanitizer dispenser) and thermal screening provisions.
- ✦ Only asymptomatic staff/visitors shall be allowed.
- ✦ Any officer and staff residing in containment zone should inform the same to supervisory officer and not attend the office till containment zone is denotified. Such staff should be permitted to work from home and it will not be counted as leave period.
- ✦ Drivers shall maintain social distancing and shall follow required dos and don'ts related to COVID-19. It shall be ensured by the service providers/officers/staff that drivers residing in containment zones shall not be allowed to drive vehicles.
- ✦ There shall be provision for disinfection of the interior of the vehicle using 1% sodium hypochlorite solution/spray. A proper disinfection of steering, door handles, keys, etc. should be taken up.
- ✦ Advise all employees who are at higher risk i.e. older employees, pregnant employees and employees who have underlying medical conditions, to take extra precautions. They should preferably not be exposed to any front-line work requiring direct contact with the public. Office management to facilitate work from home wherever feasible.
- ✦ All officers and staff/visitors to be allowed entry only if using face cover/masks. The face cover/mask has to be worn at all times inside the office premises.
- ✦ Routine issue of visitors/temporary passes should be suspended and visitors with proper permission of the officer who they want to meet, should be allowed after being properly screened.
- ✦ Meeting, as far as feasible, should be done through video conferencing.
- ✦ Posters/standees/AV media on preventive measures about COVID-19 to be displayed prominently.
- ✦ Staggering of office hours, lunch hours/coffee breaks to be done, as far as feasible.
- ✦ Power crowd management in the parking lots and outside the premises - duly following social distancing norms be ensured.
- ✦ Valet parking, if available, shall be operational with operating staff wearing face covers/masks and gloves as appropriate. "A proper disinfection of steering, door handles, keys, etc. of vehicles should be taken up.
- ✦ Any shops, stalls, cafeteria etc., outside and within the office premises shall follow social distancing norms at all times.
- ✦ Specific markings may be made with sufficient distance to manage the queue and ensure social distancing in the premises.
- ✦ Preferably separate entry and exit for officers, staff and visitors shall be organised.
- ✦ Proper cleaning and frequent sanitization of the workplace, particularly of the frequently touched surfaces must be ensured.
- ✦ Ensure regular supply of hand sanitizers, soap and running water in the washrooms.
- ✦ Required precautions while handling supplies, inventories and goods in the office shall be

ensured.

- ✦ Seating arrangement to be made in such a way that adequate social distancing is maintained.
- ✦ Number of people in the elevators shall be restricted, duly maintaining social distancing norms.
- ✦ For air-conditioning/ventilation, the guidelines of CPWD shall be followed which inter alia emphasises that the temperature setting of all air conditioning devices should be in the range of 24-30°C relative humidity should be in the range of 40-70%, intake of fresh air should be as much as possible and cross ventilation should be adequate.
- ✦ Large gatherings continue to remain prohibited.
- ✦ Effective and frequent sanitation with premises shall be maintained with particular focus on lavatories, drinking and hand washing stations/areas.
- ✦ Cleaning and regular disinfection (using 1% sodium hypochlorite) of frequently touched surfaces (door knobs, elevator buttons, hand rails, benches, washroom fixtures etc.) shall be done in office premises and in common areas.
- ✦ Proper disposal of face covers/masks/gloves left over by visitors and/or employees shall be ensured.
- ✦ In the cafeteria/canteen/dining halls:
 - ✦ Adequate crowd and queue management to be ensured to ensure social distancing norms.
 - ✦ Staff/waiters to wear mask and hand gloves and take other required precautionary measures.
 - ✦ The seating arrangement to ensure a distance of at least 1 meter between patrons as far as feasible.
 - ✦ In the kitchen, the staff to follow social distancing norms.

10.4 Closure of Workplace:

- ✦ If there are one or two cases reported, the disinfection procedure will be limited to places/areas visited by the patient in past 48 hrs. There is no need to close the entire office building/halt work in other areas of the office and work can be resumed after disinfection as per laid down protocol.
- ✦ However, if there is a larger outbreak, the building/block will have to be closed for 48 hours after thorough disinfection. All the staff will work from home, till the building/block is adequately disinfected and is declared fit for re-occupation.

10.5 Workplace Hygiene:

Frequent workplace sanitization and frequent hand washing; no sharing no touching:

1. Maintain regular housekeeping practices, including cleaning and disinfecting of all floors, light switches, entrance gates, kitchen, washroom floors, counters, taps, sinks and toilet seats, machinery, doors and windows handles and knobs, staircase rails, work stations, tables and desks, chairs, vehicles (especially contact points) and objects like telephones and computer keyboards etc. and other elements of the work environment at least twice daily, once before each shift. High-touch surfaces should be identified for priority disinfection.

2. Make sure that there is a gap of one hour between shifts to enable proper sanitization. 1% freshly prepared Sodium Hypochlorite solution may be used for the purpose. Alcohol based sanitizer can be used for those surfaces that can't be cleaned with Sodium Hypochlorite. Provide materials to workers to clean their workplaces. Store and use disinfectants in a responsible and appropriate manner according to the label.
3. Ensure good quality, Government approved materials.
4. Clean garbage bins and areas around them daily at the end of the day with soap solution and disinfect with 1% freshly made Sodium Hypochlorite solution.
5. Ensure that all persons handling garbage wear gloves, masks, gowns and boots.
6. Insist on frequent cleaning of hands by workers and other visitors with soap and water or with a sanitizer.
7. Ensure that hand sanitizers are placed at the entrance, near all touch points, in washrooms and in multiple easily accessible place and that they are regularly refilled.
8. All employees must clean their hands before and after work shifts, before and after work breaks, after blowing their nose, coughing, or sneezing, after using the restroom, before eating or preparing food and after putting on, touching, or removing masks. Place posters that encourage hand hygiene.
9. Discourage people from touching common surfaces like gates, staircase banisters, walls, door handles with their hands and encourage them to use their elbows, shoulders or arms to open doors.
10. Innovative messaging in the form of red paint and suitably placed signs should be placed for the purpose. Remove door handles and knobs wherever possible. Dedicated personnel can also be deputed to open doors and operate lift, using gloves. Consider automatic doors and taps.
11. Remove newspapers, magazines, and other paper material which might come in contact amongst individuals.
12. Disallow workers from sharing pens, phones, desks, offices, computers or other work tools and equipment.
13. Create a place and a mechanism by which parcels and mail can be delivered to a single place without contact. Take deliveries contact less.
14. Use packaged water and disposable cups for beverages.
15. Educate employees to make a habit of not touching their nose, mouth or eyes. Spraying or logging is generally not recommended. Spraying of people with disinfectants (such as in a tunnel, cabinet, or chamber) is harmful and not recommended under any circumstances.

10.6 Workplace Social Distancing:

Physical and functional changes; remote working and remote services:

1. Ensure a distance of 2 meters between tables and desks, and between various work areas and other spaces in the facility by modifying the work space if need be. Park areas around individual workspaces with visual indicators like barricade tape, floor tape, cones etc. in order to limit encroachment by others.
2. Reduce density of people in the building and ensure physical spacing in common spaces such as entrances/exits, lifts, pantries/cafeterias, stairs and lobbies etc.

3. Make sure that everyone understands that they must ensure a distance of at least 2 meters from each other at all times. Use signs, colour marks, or other visual cues such as coloured tape on the floor placed 2 meters apart to indicate where to stand when physical barriers are not possible. Use verbal announcements, signage, and visual cues to promote social distancing.
4. Limit access to common areas like cafeterias, changing and locker rooms, washrooms etc.
5. Suspend recreational activities.
6. Prohibit touching, handshaking and hugging.
7. Prohibit unnecessary movement by workers.
8. Deliver services remotely (e.g. by phone, video, or web) where possible. Use contact less/cashless payment systems. Move the electronic payment terminal/credit card reader farther away from the cashier.
9. Replace face to face meetings with virtual meetings. Cancel all non-essential meetings. Avoid huddles and other gatherings; address workers, if needed, by PA system. In case a meeting is unavoidable, minimize the number of people. Advise participants not to attend if they feel unwell. If possible, hold meetings in open spaces. Provide masks, tissues and sanitizers and ensure social distancing and frequent hand sanitization.
10. Flexible worksites, e.g. work from home, tele-working and flexible work hours like staggered shifts, split teams, alternate day working or extra shifts, help to reduce the number of employees reporting at the same time. This will not only increase the physical distance among employees but between employees and others.
11. For jobs requiring collaboration that would interfere with social distancing, redesign the production flow. Make small teams of workers and keep the membership of the team fixed. Minimize contact between workers of different teams.
12. Make all documentation and processes like communications, bills, invoices, job cards, filings, trainings etc. online/paperless.
13. Stairs should be preferred over lifts. The number of people should be restricted in lifts. Users should face the walls on clearly marked out places at least three feet away from each other. Sanitize all lifts twice daily.
14. Reception and dispatch of supplies and material should be staggered and done during off hours. Limit the number of workers involved and make safety protocols for loading and unloading so as to maintain social distancing. All involved persons should wear masks and wash hands before and after loading/unloading. Discourage outside workers from entering your facility. If possible. Disinfect materials before using them. Sanitize trucks before loading and after unloading.

10.7 Action to be taken on COVID-19 case in non-COVID health facility:

- (i) When a positive COVID-19 patient is identified in a health care facility, not designated as COVID-19 isolation facility:
 - ✦ Inform the local health authorities about the case.
 - ✦ Assess the clinical status of the patient prior to referral to a designated COVID facility.

- ✦ The patient should be immediately isolated to another room (if currently being managed in a shared ward/room). If the clinical condition permits, such patients should be masked and only a dedicated healthcare worker should attend this case, following due precautions.
 - ✦ If the clinical status of the case permits, transfer such case to a COVID-19 isolation facility (Dedicated COVID Health Centre or dedicated COVID Hospital), informing the facility beforehand about the transfer, as per his/her clinical status, test results (if available), with information to local health authority. Complete case records of such patients must be made available to the receiving hospital. Follow appropriate standard precautions while transporting the patient. This should be followed by disinfection procedures at the facility and the ambulance.
- (ii) When a suspect/confirmed COVID-19 HCW (Health Care Worker) is identified:
- ✦ HCWs developing respiratory symptoms (e.g. fever, cough, shortness of breath) should be considered suspected case of COVID-19.
 - ✦ He/she should immediately put on a face mask, inform his supervisor and HICC. He/she should be isolated and arrangement must be made to immediately refer such a HCW to COVID-19 designated hospital (if not already working in such a facility) for isolation and further management.
 - ✦ He/she should be immediately taken off the roster. Rapidly risk stratify other HCWs and other patients that might have been exposed to the suspect HCW and put them under quarantine and follow up for 14 days (or earlier if the test result of a suspect case turns out negative). Their details must also be shared with the local health authorities.
 - ✦ All close contacts (other HCW and supportive staff) of the confirmed case should be put on Hydroxy chloroquine chemoprophylaxis for a period of 7 weeks, keeping in mind the contraindications of the HCQ.
 - ✦ All Health Care Facilities (HCF) must have a staffing plan in place including a contingency plan for such an event to maintain continuity of operations. E.g. staff in HCF can be divided into groups to work on rotation basis every 14 days and a group of back up staff which is pooled in case some high risk exposure/HCW with suspected COVID-19 infection is detected.
 - ✦ Ensure that the disinfection procedures are strictly followed. Once a suspect/confirmed case is detected in a healthcare facility, standard procedure of rapid isolation, contact listing and tracking disinfection will follow with no need to shut down the whole facility.
- (iii) Decision of further/continued use of non-COVID facilities where a single/multiple COVID-19 case has been reported:
- (a) Hospital's catchment area is a large cluster of COVID-19.
 - (b) Catchment area is having a population which has a large number of vulnerable individuals having multiple co-morbid condition, poor nutritional status and/or having individuals not able to practice social distancing e.g. slum clusters.
- (iv) Internal Administrative Reasons:
- (a) The health facility is not up to the mark in IPC practices.
 - (b) Non-fulfilment of guidelines regarding training of patients in the outpatient department and emergency. Based on the scope of the cluster and degree to which the hospital has been affected (HCW patients, and HCW contacts), degree of the risk to the patients visiting the

hospital such as those with chronic diseases etc. the decision can be made based on a risk assessment to:

- ✦ In the hospital authorities are reasonably satisfied that the source case/s have been identified and isolated all contacts have been traced and quarantined and adequate disinfection has been achieved, the hospital will continue to function.
 - ✦ In addition to steps taken above, if the health facility still continues to report new hospital acquired COVID-19 cases in the following days, it would be advisable to temporarily close the defined section of the health facility where the maximum number of HAI is being reported. After thorough cleaning and disinfection it can be put to use again.
 - ✦ Despite taken the above measures, if the primary source of infection could not be established and/or the hospital is still reporting large number of cases among patients and HCWs a decision needs to be taken to convert the non-COVID health facility into a COVID health facility under intimation to the local health department. In such a scenario, the entire healthcare workers of the facility should be oriented in Infection Prevention and Control practices and other protocols for which guidance is available at www.mohfw.gov.in.
- (v) Follow up actions when a non-COVID health facility reports a COVID-19 case, the HICC will ensure the following in order to minimize the possibility of an undetected contact/case amongst other patients/HCWs:
- ✦ Ensure that active screening of all staff at the hospitals is done daily (by means of thermal screening especially at the start of shift).
 - ✦ All healthcare and supportive staff is encouraged to monitor their own health at all the time for appearance of COVID-19 symptoms and report them at the earliest.
 - ✦ Be on the lookout for a typical presentation (or clinical course) or admitted patients.
 - ✦ Standard precautions to be followed diligently by all.
 - ✦ Follow all guidelines regarding triaging of patients in hospital emergency and outpatient departments.

10.8 The following engineering solutions reduce the risk of spread of COVID-19:

1. Structural modifications in the workplace to maintain social distancing norms and ventilation.
 2. Installation of physical barriers such as clear glass/Plexiglas/acrylic or any other suitable partition, wherever possible, between workstations, at the reception, between other work areas and where there is public interaction.
- a) More outdoor air ventilation:**
1. Increasing outdoor air ventilation in air conditioners at workplace/shop floor by opening doors and windows or installing exhausts.
 2. Switching on exhausts/ventilation systems 2 hours prior to and 2 hours after the building usage time.
 3. Keeping toilet exhaust fans open 24/7.
 4. Avoiding the use of central air conditioning. Using individual from air conditioners with HEPA filters when absolutely necessary.
 5. Ensuring that ventilation systems operate properly and provide acceptable indoor air quality for the occupancy level for each space.

b) Administrative Controls:

Administrative changes are relatively easier to implement and go a long way towards minimizing the risk of spread of COVID-19. Set up teams or identify individuals, if possible, for managing various tasks related to infection control:

1. Discourage visitors. Allow visitors with prior appointments only. Whenever possible, their Aarogya Setu status should be checked before entry. No visitor should be allowed beyond the reception area.
2. Do not use Biometric Attendance Systems. Discontinue frisking.
3. Use calibrated, Infrared, no touch, thermometers at the entrances of any facility to measure temperature of all visitors and all workers. Enquire about symptoms of COVID-19. All those with fever or symptoms should be asked to go back home and seek immediate medical attention. Maintain an entry and exit register. Allow entries and screenings at multiple places to avoid crowding.
4. Encourage workers with symptoms of COVID-19 to inform their supervisor and stay at home and seek medical attention. Promote the message that workers should stay home even if they have mild symptoms. Allow workers to stay at home to look after family members with COVID-19 and to self-monitor.
5. Make sure that all workers and visitors sanitize their hands with an alcohol based sanitizer before entering.

10.9 Travel Advisory:

Only unavoidable travel; basic infection control measures while travelling.

1. Discontinue nonessential travel.
2. Do not allow employees who are at high risk of serious illness to travel.
3. Provide the employee with a small bottle of hand sanitizer when he/she goes out.
4. Make sure he/she will wear a mask and take all basic infection control measures mentioned above and avoid loitering, avoid touching surfaces as much as possible and avoid crowded places.

Ensure that employees who become sick while travelling or on temporary assignment understand that they should notify their supervisor and promptly call a healthcare provider for advice if needed.

[Source: Ministry of Health & Family Welfare, Directorate General of Health Services (EMR Division)]

10.10 Latest Instructions regarding Preventive Measure to contain COVID-19:

The latest Instructions regarding containment of Variants of Concern/Variants of Interest (VoCs/Vols) of the SARS-CoV-2 virus under the advisory issued by Ministry of Health and Family Welfare (MoHFW) dated 25.11.2021, communicated by Safety Directorate, Railway Board is reproduced -

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

L. No. 2020/Safety(DM)/6/14

New Delhi, dated 01.12.2021

General Managers, All Zonal Railways and Production Units,
Director Generals, RDSO and NAIR.

CMDs/MDs, All Railway PSUs & KRCL
Directors, All Central Training Institutes

Sub : Preventive measures to contain the spread of Covid-19.

Ref.: Board's letter of even no. dated 25.03.2020, 07.04.2020, 13.04.2020, 14.04.2020, 15.04.2020, 01.05.2020, 18.05.2020, 01.06.2020, 30.06.2020, 31.08.2020, 01.10.2020, 28.10.2020, 26.11.2020, 30.12.2020, 28.01.2021, 02.03.2021, 24.03.2021, 30.04.2021, 31.05.2021, 30.06.2021, 30.07.2021, 01.09.2021, 01.10.2021 and 29.10.2021

Ministry of Home Affairs (MHA) vide their order no. 40-3/2020-DM-(A) dated 30.11.2021 have directed that MHA's order of even number dated 28.09.2021 (issued vide Board's letter of even number dated 01.10.2021), to ensure compliance with the Prompt and Effective Containment Measures for Covid-19 will remain in force upto 31.12.2021. Further, it is directed to ensure strict compliance to the MoHFW advisory dated 25.11.2021 enclosed as Annexure-I of MHA's above mentioned order.

A copy of MHA's above mentioned order as available and downloaded from their website, is enclosed herewith for information and strict compliance.

Encl: As above

(K.P. Yadav)
Exec. Director/Safety-II
Railway Board



No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001

Dated 30th November, 2021

ORDER

Whereas, an Order of even number dated 28th September, 2021, was issued to ensure compliance to the containment measures for COVID-19, as conveyed vide Ministry of Health & Family Welfare (MoHFW) DO No. Z.28015/85/2021-DM Cell vide Order of even number dated 28.10.2021.

And whereas, considering the emergence of highly mutant COVID-19 variant B.1.1529 cases in few countries of Africa, MoHFW vide DO No. 25/S(HFW)/CVariant/2021 dated 25th November, 2021, has issued an advisory to all international arrivals, as per their guidelines issued from time to time. Further the contacts of these international travelers must also be closely tracked and tested as per MoHFW guidelines and the samples of travelers turning positive are sent to the designated INSACOG Genome Sequencing Laboratories (IGSLs) promptly, as per the Indian SARS-CoV-2 Genomics Consortium (INSACOG) Guidance Document. State Surveillance Officers must also establish a close coordination with their designated/tagged IGSLs for expediting results of genomic analysis, and the State/UTs should immediately undertake necessary public health measures, in case presence of Variants of Concern/Variants of interest (VOCs/VoIs) in reported by the INSACOG network.

Whereas, in exercise of the powers conferred under section 6(2) (i) of the Disaster Management Act, 2005 (DM Act), National Disaster Management Authority (NDMA) has directed the undersigned to issue an Order, for containment of COVID-19 in the country.

Now, therefore, in exercise of the powers, conferred under Section 10(2)(1) of the DM Act, the undersigned, hereby directs that the Order of the Ministry of Home Affairs of even number, dated 28th September, 2021, to ensure compliance with the Prompt & Effective Containment Measures for COVID-19, as conveyed vide Ministry of Health & Family Welfare (MoHFW) DO No. Z.28015/85/2021-DM Cell, dated 21st September, 2021, will remain in force up to the 31st December, 2021. Further it is directed to ensure strict compliance to the aforesaid MoHFW advisory (Annexure-I) dated 25th November, 2021.

Union Home Secretary
and, Chairperson, National Executive Committee (NEC)

To :

1. The Secretaries of Ministries/ Departments of Government of India.
2. The Chief Secretaries/ Administrators of States/ Union Territories
(As per list attached)

Copy to :

- i. All Members of the National Executive Committee
- ii. Member Secretary, National Disaster Management Authority





राजेश भूषण, आईपीएस
सचिव

RAJESH BHUSHAN, IAS
SECRETARY



Annexure-I

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण विभाग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय

Government of India
Department of Health and Family Welfare
Ministry of Health and Family Welfare

D.O. No. 25/S (HFW)/CVariant/2021
25th November 2021

Dear Colleague,

This is regarding the Variants of Concern/Variants of Interest (VoCs/Vols) of the SARS-CoV-2 virus and the Whole Genome Sequencing activity being coordinated in the country through the Indian SARS-CoV-2 Genomics Consortium (INSACOG) and National Centre for Disease Control (NCDC), which is the Nodal Agency for INSACOG. The aim of this activity is tracking and monitoring emergence and transmission of COVID-19 VoCs/Vols in the country.

2. In this regard, various letters issued by this Ministry dated 12th Nov. 2021, 3rd Nov. 2021, 26th Oct. 2021, 20th Oct. 2021, and 27th August 2021 may please be referred to. All these letters reiterated the criticality of scrupulous implementation and rigorous monitoring of the three-pronged surveillance strategy of screening and testing international travelers & their contacts, routine sentinel surveillance and timely sending of RT-PCR positive samples to designated INSACOG Genome Sequencing Laboratories (IGSLs).

3. It has now been reported by NCDC that multiple cases of a COVID-19 variant B.1.1529 have been reported in Botswana (3 cases), South Africa (6 cases) and Honk Kong (1 case). This variant is reported to have a significantly high number of mutations, and thus, has serious public health implications for the country, in view of recently relaxed visa restrictions and opening up of international travel.

4. It is therefore imperative that ALL international travelers traveling from and transiting through these countries, (they are part of the "at risk" Country Category of international travelers coming to India) and also including all other 'at risk' countries indicated in the revised Guidelines for International Arrivals issued by this Ministry dated 11.11.2021, are subjected to rigorous screening and testing, as per MoHFW Guidelines. The contacts of these international travellers must also be closely tracked and tested as per MoHFW guidelines.

..... contd/-



5. You are also requested to ensure that samples of travellers turning positive are sent to the designated [GSLs promptly as per the INSACOG Guidance Document issued by this Ministry available at https://www.mohfw.gov.in/pdf/INSACOG_Guidance_Document_dated15_July_2021_final.pdf State Surveillance Officers must also establish close coordination with their designated/tagged IGSLs for expediting results of genomic analysis, so that necessary public health measures may be undertaken by the States/UTs in case presence of VOCs/Vols is reported by the INSACOG network.

6. It is critical for the States/UTs to adhere to the overarching 'Test-Track-Treat-Vaccinate' principle to ensure stringent implementation of containment measures as per MoHFW guidelines, and to prevent the spread of VoC/Vols and formation of clusters of cases.

Yours sincerely

-Sd-

(Rajesh Bhushan)

Additional Chief Secretary / Principal Secretary / Secretary (Health)

All States UTs

Copy for information to: Director NCDC

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Chapter - 11



CHAPTER - 11

DISASTER RESPONSE - ASSISTANCE FROM ADJOINING DIVISIONS/ZONES

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 50 injuries (Grievous). Threshold levels in terms of nos. of injuries is considered, because initially it is difficult to estimate number of casualties.
- (iv) Whenever number of injuries is estimated to go beyond 50, assistance should be sought for from adjoining Divisions/Zones, may be in the form of a team (comprising of one officer-in-charge, Doctors, Para-Medical staff, Commercial staff, personnel supervisors, Group 'D' staff and RPF platoon) for every 50 additional injuries, beyond 50 injuries.
- (v) This is to be co-ordinated by the Chief Emergency Officer in Head Quarter's Emergency Cell.

11.2 Assessment of assistance from adjoining Divisions/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 Head Quarter's Emergency Cell.
- (vii) Based on the above figures, decision should be taken and assistance rushed from adjoining division and zones.

11.3 Assistance from Defence & Para Military Forces:

As per Disaster Management Act 2005, various Ministries and departments under Government of India, should join hands for mutual assistance in case of Disaster. Assistance from Local Government and Non- Government agencies is invariably required by the Railway Administration for prompt relief and rescue operation in case of Disasters affecting Railways. Assistance of NDRF could be of great help to the Railways in major Railway Disasters.

- (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 headquarters have to approach Railway Board who will request NDMA to Direct NDRF Battalions to proceed to site. (Adviser safety, Railway Board's letter No. 203/safety(DM) 6/3 dtd. 02.11.2009)

11.4 Departmental assistance from adjoining Divisions/Zones:

- (a) S&T Department:
 - (i) Satellite telephones from ARTs of remaining divisions of West Central Railway.
 - (ii) Existing Mobile Telephones from remaining divisions may be sent to site.
- (b) Electrical Department:
 - (i) Generators from ARTs of adjoining division.
 - (ii) Lighting equipments from ARTs of adjoining division.
 - (iii) Portals and OHE masts.
- (c) Civil Engineering:
 - (i) Additional workmen, as many as possible, are required to be moved from adjoining divisions/zones.
 - (ii) Each such division sending assistance should move maximum men, as possible, along with some artisans and PWIs.
 - (iii) One DEN and one ADEN each should also move to the site of accident from each such division.

Note : Mobilization of work force and deployment of resources at the accident site is the sole discretion of DRM, however, it should be as required basis and assistance from adjoining divisions/zones should only be sought, with the consent of GM, if the situation and gravity of accident so warrants.

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Chapter - 12



CHAPTER - 12

PASSENGER CARE

12.0 General :

- (i) Injured passengers and their relatives/dependents are to be treated with utmost courtesy and sympathy so as to alleviate their trauma and discomfort.
- (ii) For dealing with relatives/dependents arriving from far-flung corners of the country, staff fluent in local language of the place from where the train originated, should be used as interpreters.
- (iii) Injured passengers should be provided either mobile or STD phones to enable them to speak to their relatives/dependents.
- (iv) Transshipment of unaffected passengers and their clearance from the accident site should be arranged quickly. The officer available in the control shall arrange the transshipment on priority.
- (v) Even in case of worst possible accident in adverse and extreme circumstances, injured passengers should be rescued on priority. Site manager as well as officer in-charge in the control shall monitor the situation to do so.
- (vi) In rescue operations, top priority will be given to all passengers in critical condition for immediate medical attention.
- (vii) Even in case of worst possible accident, dead bodies should be extricated at the fastest possible speed. The ARME in-charge and officials available at the site accident should act accordingly.

12.1 Hospitalization of the injured :

- (i) General policy, in case of railway accidents involving passengers, is that of rapid evacuation of the victims to railway hospital after rendering immediate and necessary first-aid treatment.
- (ii) In case there are no railway hospitals nearby, they are to be admitted in the nearest Government hospitals.
- (iii) In the following cases, the injured may be taken to a private hospital:
 - (a) When there is no railway or Government hospital available within a radius of say 8 kms. from the site of accident, or;
 - (b) When the attending doctor certifies in writing that the treatment in private hospital is necessary in the interest of the patient.
 - (c) Except where railway doctor certifies, such injured passenger should normally be eligible to the class of accommodation in the private hospitals where different scales are available.
 - (d) 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 chalk out a working arrangement with such private hospitals as may be necessary in areas served by them, so that in an emergency, injury cases can be referred to hospitals concerned without loss of time.
- (v) To facilitate matters and to avoid misunderstanding, CMD should draw a list of such private hospitals bearing in mind the Railway and other Government hospitals in the vicinity.



- (vi) CMD should also fix the charges to be paid in such cases for each class accommodation. Complete medical care will be taken of all injured passenger including payment of medical bills till their final discharge from hospitals. Claims compensation booklets containing forms and other instructions will be distributed to all injured passengers and next of kin of all deceased passengers.
- (vii) Bills by such private hospitals should be submitted through CMD, who will certify the correctness of charges payable, before forwarding for payment to FA&CAO.
- (viii) Under this para, payment to private hospitals can be arranged locally by the Railway and Ministry of Railways approval is not necessary. (Extract of Para 701(1) & Para 712 of Chapter VII of IRMM and Para 1421 of Indian Railway Establishment Manual and M.O.R's letter No. MH.59/MES/96/ Medical dated 18.12.1959).
- (ix) If the injured are admitted in non-Railway hospitals, railway doctors should be deputed to these hospitals to render necessary assistance, including supply of the medicines that are not available in those hospitals.
- (x) They should 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 co-ordinate and maintain the centralized updated position.

12.2 Facilities to be made available in the hospital :

- (i) There should be a separate reception counter manned by a commercial supervisor or by a WI at the entry to the hospital, to deal with relatives/dependents of patients.
- (ii) A chart should be displayed at this reception counter indicating ward numbers where the patients are admitted, along with their names, coach number wise.
- (iii) 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.
- (iv) Reception counter should be provided with BSNL telephone with STD facility.
- (v) There should be two mobile telephones readily available to be taken to patients inside the wards for making outgoing calls.
- (vi) Complete medical care of all passengers, including payment of medical bills till the final discharge, should be provided.

12.3 Communication :

- (i) Telephone with STD facility should be made available to passengers to communicate with their relatives/dependents.
- (ii) BSNL/Railway telephones available at adjoining stations/cabins/towns should be extended to the accident site.
- (iii) PCO telephones and other BSNL phones in nearby localities/villages/towns should also be extended to the accident site by persuading owners of such phones.
- (iv) Payments for such telephone connections will be made from station earnings.
- (v) Sr. DSTE should hire some mobile phones to meet the needs of stranded passengers
- (vi) Wherever cellular phone connectivity is available, stranded passengers should be permitted to use these phones free of charge.

12.4 Arrival of relatives/dependents :

- (i) Adequate number of display boards should be available on ARMEs/ARTs for being put up at the accident site.
- (ii) These display boards should indicate the direction of the Assistance Center at site.
- (iii) These indication boards should be displayed near those areas where incoming relatives/dependents arrive and congregate.

12.5 Taking care of relatives/dependents :

- (i) At the Assistance Center at site, Commercial supervisors & WIs should be available to guide the relatives/dependents. They should go through the reservation charts and list the dead/injured.
- (ii) A hired vehicle should be provided for carrying them to various hospitals and mortuaries.
- (iii) The commercial supervisor or WI should stay with the relative until they have either found the injured passenger or identified the dead body.
- (iv) Thereafter; they should help them in completing all formalities at the Assistance Center at site.

12.6 Single window clearance :

Assistance Center at site should provide single window clearance for all legal formalities and paper work. It should provide the following facilities :

- (i) Reservation chart for locating the name.
- (ii) List of dead and injured along with the name of hospital.
- (iii) A vehicle to take the relatives to various hospitals or mortuary.
- (iv) Railway doctor for issue of medical Death Certificate.
- (v) Govt. doctor for issue of post mortem clearance.
- (vi) Municipality official for issue of Death Certificate.
- (vii) Local police for handing over of dead body.
- (viii) Claim counter for payment of ex-gratia and issue of Claim Compensation Form.
- (ix) Counter to help in performing last rites in case relatives/dependents decide to cremate the body there itself.
- (x) Pass counter for issue of return journey pass.
- (xi) Return journey facilitation counter to make arrangements for return journey.

12.7 Stay of relatives/dependents of dead and injured :

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

- (iv) Depending upon the need, accommodation in hotels/dharamshalas should be hired for accommodating passengers.
- (v) Arrangements should be made for their meals, etc.

12.8 Performance of last rites :

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

12.9 Departure of relatives/dependents of dead and injured :

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

12.10 Station Earnings can be utilized for :

- (i) Departmental expenditure necessitated by floods, accidents and earthquakes etc.
- (ii) Handling charges for transhipments due to accidents.
- (iii) Cost of transportation of sick and wounded persons to hospitals, when at small stations ambulances are not available.
- (iv) Payment of expenses of special catering, when the imprest is exhausted in emergent cases only, duly authorized by an officer.
- (v) Refund of fares on un-used and partially used tickets.
- (vi) Ex-gratia payment to the person involved in train accident.
- (vii) Payment not exceeding Rs.100/- in each case for shrouds to cover dead bodies of victims of accident on railway. The voucher required to be submitted along with counter signature by GRP official.
- (viii) Payment to licensed porters for carrying injured/dead bodies
(Authority-Joint commercial and account procedure office order No. C156/4/14dated 20.3.91)
- (ix) Providing free meal, water, tea snacks to affected passengers, injured, un-injured or stranded. (Authority-Rly. Bd. Letter No. 69/safety-1/4/3 dated 22.9.1989)

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Chapter - 13



CHAPTER - 13

MEDIA MANAGEMENT

13.0 Objectives :

- i) To provide factual information to public with regard to accident.
- ii) To convey any other information which is of use to passengers.
- iii) To convey specific information which is of use to relatives/dependents of dead and injured passengers.
- iv) To create a positive public opinion.
- v) To create a healthy relationship with the press and electronic media.

13.1 Duties of PR organization :

- i) CPRO and his team will collect whatever information is available and release it to the media within 60 minutes of intimation of accident.
- ii) The information shall include telephone numbers of Help line Enquiry Booths.
- iii) Photographers with digital and video cameras should also be taken to the accident site.
- iv) Responsible PR supervisors should be deputed during night shift for interacting with the media, if necessary.
- v) CPRO will organize press briefings at fixed timings.
- vi) PR organization shall monitor various important media channels to keep track of media reporting. Suitable corrections/clarifications may also be issued, if required.

13.2 Spokesperson :

- i) Only GM, DRM and CPRO are competent to interact with 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) They should ensure that only factually correct and confirmed information is relayed.
- iv) No inflated or exaggerated version of any fact should be relayed to the media.
- v No railwayman shall express or voice any criticism, or express his personal opinion or views about the accident, at any point of time.

13.3 Information to be relayed to Press and Electronic Media :

In case of Accident the following information to be given to media -

- i) Nature of the accident , i.e. date, time, exact location, train number, 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.
 - i) Sabotage, even if suspected will not be relayed to media, without approval of Railway Board.
 - ii) Regular reports regarding progress of Rescue & Relief work.
 - iii) Expected date and time of restoration.

13.4 Steps taken for uninjured passengers :

- i) Steps taken to provide beverages, refreshments and first aid treatment given to uninjured passengers.



- ii) Steps taken by railway for clearance of uninjured passengers.
- iii) Expected time of departure of front portion of the affected train.
- iv) Expected time of arrival at the destination.
- v) Expected time of departure of rear portion of accident involved train.
- vi) Its diverted route and expected arrival at the destination.
- vii) In case empty coaching rakes have been arranged, then details of the same.

13.5 Steps taken for Dead and Injured passengers :

- i) Steps taken by Railway to render immediate medical attention
- ii) Number of passengers rescued.
- iii) Breakup of the injured passengers, both grievous and simple.
- iv) Name of the 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/dependents of victims, including free pass for journeys.
- x) Special trains being run for bringing relatives/dependents 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;
 - a) They were traveling alone or;
 - b) Their companions are injured and are not in a position to identify them, or;
 - c) Their companions have also been injured/dead.
- xiii) Under such circumstances it is possible to identify dead bodies only when relatives/dependents arrive.
- xiv) This aspect of identification of dead bodies and reasons for delay should be explained to the media.

13.6 Train Services :

- i) Details of train operation with regard to;
 - a) Diversion
 - b) Regulation
 - c) Rescheduling
 - d) Short termination
 - e) Cancellation
- ii) Running of passenger specials for carrying relatives/dependents to the site of accident.
- iii) These trains will be started from the originating and destination stations of the affected train and will be given same stoppages en-route for picking up relatives;
 - a) Expected departure time of relatives/dependent's special from their originating stations.
 - b) Refunds being granted in Help line Enquiry Booths for passengers whose journey have been interrupted.

13.7 Casualty figures :

- i) In all accidents, as long as Rescue & Relief work continues, there is always a difference between casualty figures given by the railway and casualty figures quoted by the media.
- ii) The reason for this difference is that railway gives figures based on actual number of dead bodies recovered, whereas media estimates casualty figures based on the damage visible.
- iii) During Press briefings, this point should be clarified that till the present 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:
 - a) Total number of coaches involved.
 - b) Number of coaches searched.
 - c) 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.

13.8 Press Briefings at accident site :

- i) DRM or his authorised representative shall collect factual information from the Site Manager and relay the same to the media and HQ. Thus an on-line communication channel will be established to keep media informed of all important details.
- ii) CPRO or PRO should be available during press briefings in HQ.
- iii) There should be a fixed time for press briefings so that there is no confusion regarding different versions given to separate channels at various points of time.
- iv) Simultaneous press briefings should be held at accident site, at HQ, and at Division, as per the time intimated, so that the same version is given by all concerned.
- v) All media releases will be uploaded on the West Central Railway Website, and a separate web page will be opened to give specific information with regard to the accident. The priority of information release to various media will be as under:
 - a) TV Channels.
 - b) News Agencies like UNI, PTI.
 - c) Print Media.
- vi) Convenience of media shall be taken care of by PR personnel with assistance of commercial representatives at site. Tour of media persons should be conducted to hospitals where injured are being treated.
- vii) Commercial department should ensure that list of passengers who traveled by the accident involved train along with the list of dead and injured reaches the PR officials at the earliest.

13.9 Telephone Numbers for Railway Accident Information :

HQ of WCR and Jabalpur, Bhopal & Kota divisions of West Central Railway are allotted 4 digit DOT telephone No. 1072 for giving Railway Accident Information. Normally these



telephone will be manned by punctuality controllers. During railway passenger train accident, the phones will be manned by multi disaster resistance control cell to provide information to public regarding type of train accident, place and time of accident, train/trains involved, affected Coach Nos., injuries/casualties etc.

Public Assistance Telephones

Sr. No.	Division	Std Code	Telephone No.
1.	Jabalpur	0761	1072 (4 Lines)
2.	Bhopal	0755	1072 (4 Lines)
3.	Kota	0744	1072 (4 Lines)

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Chapter - 14



CHAPTER -14

DISASTER MANAGEMENT TRAINING

14.0 Disaster Management Training on the Railways:

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 periodical training regarding their duties and that of their department.

Disaster management training is to be imparted to all the railway officials as per HLC recommendation item no. 110 (annexure iv). This training has may be planned at Railway Staff College Vadodra, IRITM Lucknow, ZRTIs, STC Bangalore and RPF Training Centre. This is as per Railway Board letter no. E(MPP) 2009/3/1 dated 20.01.09.

Training should be conducted at the following levels :

1. Individual Training

- (a) To enhance the skill of Supervisors and staff attached to ART, ARMV's with special emphasis on Disaster Management.
- (b) Special training should be arranged in extraction, rescue, medical relief, rolling stock restoration techniques and civil defence by departments concerned .

2. Seminars/Workshops: Seminar should be periodically conducted on Disaster Preparedness and Disaster Management plan.

3. Joint Exercises: Mock Drill on Disaster Management to be conducted in a quarter year and Full Scale Exercise with NDRF on Disaster Management to be conducted once a year.

14.1 National Institute of Disaster Management (NIDM)

National Institute of Disaster Management (NIDM) has been envisaged as apex body on Disaster Management training & research in the country under the Disaster Management Act, 2005. NIDM runs several multi-disciplinary training programmes including the programmes on transportation related disasters in which railway officers have also been invited to attend. Services of NIDM may be made use of, if required, for training railway officials in Disaster Management at IRITM, Lucknow. Most of the States also have DM Training Institutes funded by the Centre.

14.2 DM Training on Zonal Railways and Divisions

With the enactment of the Disaster Management Act, Indian Railways have also taken several initiatives to revamp Disaster Management training. Presently, training on disaster management of various tiers of railway officials does not envisage newer concepts like integration of disaster management into developmental planning, leveraging on the strengths of other non-railway agencies etc. Till now any training on the subject of Disaster Management implied subjects connected with Train Accidents only. There was no training given for natural calamities or for terrorism related items. With the adoption of this concept the training requirements for Lower, Middle and Higher Management officials of the Railway needs to be re-oriented to cover these concepts. Hence the subjects of Disaster Management are more vast and varied. However, even today some of the Railway staff need are given training only on the older concept, i.e. on a limited syllabi of Management of a train accident. Amongst the staff which falls in this category are the front line staff (and their superiors) either traveling on the train or available on line.



It has also not yet been possible to harness availability and strengths of railway on-board staff who are the first Railway responders during a serious train Accident. With this in view, Board have decided to revamp the Training on Disaster Management being imparted to several tiers of railway officials through Railway Institutes as indicated below:

S.No.	Categories of Officials	New Training methodology and schedule
1	Top Level Management (GMs, PHODs, DRMs and other SAG/SG Officers)	5 day Disaster Management Modules are to be delivered at IRITM/LKO@ once every 3 months. Frequency of Training : Once every five years for SG/SAG Officers and above.
2	Middle Level Management (SG &JAG officers) -	Some of the latest and relevant topics are included in the AMP and MDP programmes being delivered at NAIR/BRC, IRITM/LKO is conducting a special module on Disaster Management developed by them Frequency of Training : Every SG/JAG officer need to under go the module once every five years either at NAIR as regular MDP/AMP course or special DM module at IRITM.
3	Lower Level Management (SS &JS officers including serving Group B officers).	Disaster management training to be imparted at IRITM/LKO Frequency of Training : Once every five years.
4	Probationers and Group B officers attending induction courses	Topics listed in annexure 4 of detailed instructions are to be covered during the regular training programme at NAIR/Vadodara. Frequency of Training : As part of the course.
5	Supervisors of all frontline departments (Mechanical, Electrical, Engg., S&T, Traffic, Comm! & Optg.)	One-week course at ZRTIs Passing this course is compulsory for promotion to SE and above. Frequency of Training : Once every five years.
6	Railway Staff on board passenger carrying train (TS, Dy.TS, TTEs & catering staff of Commercial Department, Coach attendants and AC Mechanics from Electrical Departments, some of the selected coach cleaners of Mechanical Department, some of the RPF escorting staff and Catering staff of contractor wherever out-sourced).	Disaster Management being a multi disciplinary effort during field operations, training in groups of such on board staff is more desirable and efficient then training them category wise. Role of on board railway staff has been a matter of great criticism in most of the serious train accidents. On board staff are the first railway representatives to respond to any untoward incident and their empowerment will improve railway response in a big way. Such staff is to be trained in appropriate multi disciplinary groups at such locations in the divisions where there is concentration of such staff to obviate the need for their hostel accommodation, non-availability for longer periods, etc. Such training can be imparted at the selected country-wide locations to cover maximum number of staff in short period of time. This training can also be imparted in the Customer Care Institute . Only few select staff of Mechanical, Electrical (AC), RPF is to undergo this training who are deputed to escort trains. This training will be made mandatory in a phased manner for any staff to go on-board a passenger train. The staff of catering contractor is also to Be imparted this training in phase 2 to leverage their physical presence. Frequency of training : Once every three years.

7	Nominated ARMV AND ART staff of for Mechanical and Medical departments	Composite training of Mechanical and Medical Staff for relief and rescue operations is planned to be given at upcoming disaster management railway institute at Bangalore. Doctors and paramedics nominated for ARMVs and other rescue operations should be exclusively trained on trauma care management either at some nominated specialised institutions or in house. IRITM is one of the training institute under consideration. Frequency of Training : Once every three years.
8	Disaster management team of RPF staff & other RPF personnel associated with relief rescue operations.	As per recommendation no. 46 of H LC on disaster management, there should be a disaster management team of RPF on each division comprising about 15 men in different ranks. Such teams should be trained in providing necessary support on relief and rescue operations. The existing 5 day training module should be appropriately revised to make it suitable to achieve the above objective. Each of the above teams should be trained on this module at RPF Academy at Lucknow. In addition, training module may be appropriate developed separately for RPF Officers and staff and should be imparted at RPF Academy at Lucknow. The respective training modules should include role of RPF at the accident site, security at the railway premises like railway stations, trains etc. Frequency of Training : Once every three years for disaster management team of RPF.
9	RPF Officers	Disaster Management training for RPF officers may be also organized in IRITM till such time the capability in RPF academy is developed. Frequency of Training : Once every five years for the RPF officers and staff.

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Chapter - 15



CHAPTER - 15

FIRE AND OTHER ACCIDENTS

- 15.0 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.

15.1 FOLLOWING SOURCES ARE MAIN CAUSES OF FIRE IN TRAINS:

- (i) Carrying stoves, sigris, gas cylinders, kerosene oil, petrol, fireworks etc. in passenger compartments.
- (ii) Making fire/using fire near paper, wood, petrol or such other inflammable articles.
- (iii) Lighted match sticks, cigarette ends carelessly thrown.
- (iv) Short circuit 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 burning materials with adequate supply of air surround it, fire spreads.

15.2 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 Passenger 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 Driver and Guard at both ends according to the provision of G&SR 6.03.
- (xii) Report it to the nearest station/control/fire station.
- (xiii) Every effort shall be made to extinguish the fire and to save the wagon 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 Driver shall use their discretion to proceed there but no such attempt shall be made until the portion of the train in rear of burning vehicle has been detached.
- (xv) Inform all concerned to assist in extinguishing the fire.
- (xvi) In case of fire from electrical short circuit switch off the source.

3. In the event of fire on an Electric Engine:

- (i) Driver 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, driver shall take necessary action to put out the fire.
- (iii) If fire cannot be extinguished by the above means driver shall advise TPC through emergency telephone to arrange for OHE of the affected section to be switched off.
- (iv) The guard and any other staff available shall render all possible assistance to the driver in putting out the fire.
- (v) Ordinary fire extinguishers or water from a hosepipe shall on no account be used to extinguish fire on live wire or electrical equipment.
- (vi) If 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:

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

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 Station intimating that Petrol or any other inflammable liquids, acids or gases, have caused the fire.

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

15.3 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 fibres. 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 steam of the powder at the base of the flame.
- (vi) For effective result stand at about 1.5 to 2.5 metre near the seat of the fire.
- (vii) Move forward with moving the nozzle rapidly from side to side in sweeping motion.
- (viii) When using on outdoor fires operate from the up wind side for effective spray.

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) Don't use elevators.
- (iv) Proceed to the designated gathering area outside the building.
- (v) Do not re-enter building until cleared by authority 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 authority.

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

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.

15.4 OTHER ACCIDENTS:

1. Tampering of Railway fittings causing accident & placing of foreign particle 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 tremor are sensed during Earthquake, all personnel should evacuate building 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/ Boulder falling:

- (i) Whenever landslide/ boulder falling is expected/experienced due to heavy down pour or otherwise 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 into 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 people on train/at station and move them to a safer place.
- (vi) Contact Fire brigade, Navel, Army, Air force, Local boat man and arrange divers and boats.
- (vii) With the co-ordination of local authority the Engineering officer/ supervisor or other supervisors at that station shall arrange temporary shelter in nearby schools, marriage hall, community centre etc.
- (viii) If necessary, arrange coaches to accommodate the affected temporarily.
- (ix) Seek assistance from voluntary organisation 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 St. John, 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, Driver and other Railway staff on train shall open all doors and windows of all coaches.
- (iii) Station Master shall not start trains when the wind velocity exceeds the permitted level.
- (iv) Make announcement frequently to warn the public about the storm/cyclone.

- (v) Take all necessary action to provide shelter and other assistance to those affected by cyclone and storm.

6. Riots/ Strikes:

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

- (i) Stop the train.
- (ii) Sr DSC/ DSC will Co-ordinate with Local civic authorities to ensure protection of passengers / railway property..
- iii) Sr. DSC/ DSC will rush immediate reinforcements to site.
- iv) Necessary Arrangements viz Barricades etc may be used.

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