

CRISIS MANAGEMENT IN THE INDUSTRIES AND BUILDING CAPACITY THROUGH CONDUCT OF MOCK EXERCISES

BY

Brig (Dr) B K Khanna, SM,VSM
Sr. Consultant (Training & Capacity Development)
National Disaster Management Authority,
Govt of India

Email. <bkkhanna2@gmail.com and
bkkhanna2@rediffmail.com>

WHAT IS A CRISIS

A crisis is any natural, accidental or intentional
event that severely impacts people,
property, and/or the environment.

Effects might include fatalities, disabling
injuries,

significant destruction or contamination, or
jeopardize the organization's reputation or
products, threatening a company's reputation or
its continued existence

EXAMPLES OF CRISIS

A crisis could be:

- Product contamination - as experienced by Johnson & Johnson with Tylenol
- A release - as experienced by Union Carbide in Bhopal, India
 - An explosion - Atofina Fertilizer Plant in Toulouse, France
 - A spill - Exxon Valdez
- Destruction from natural disasters such as Indian Ocean Tsunami
- Derailment and release - Chlorine in South Carolina
- An intentional act of terrorism from outside or inside the organization, or
 - Explosion and fire – IOCL Plant in Jaipur

IS YOUR COMPANY READY TO FACE CRISIS

- Has a checklist of critical actions, responsibilities and duties been developed for each function?
 - Have plans and standard operating procedures been developed to respond to expected types of incident?
- Has contact information been included in the 'on-site- Plan for Management of Disasters?
 - Does the plan include all the information needed to manage a crisis/disaster, including internal and external contacts, databases of employees, equipment, materials, external resources, etc.?
- Have the systems and resources that will contribute to the mitigation process been identified, including personnel, facilities, technology, and equipment?
 - Is the notification contact list and protocol complete and up to date?
 - Has the responsibility for declaring a disaster/crisis been assigned?
 - Has a disaster/crisis communications strategy been developed?
 - Have arrangements been made for next-of-kin notifications?

RESPONSE STRATEGY

When initiating a response, it is important to insure that the Objectives protect the following interests in order of their priority:

- Save lives and reduce chances of further injuries/deaths
- Protect the environment
- Protect assets
- Restore critical business processes and systems
- Reduce the length of the interruption of business
 - Minimize reputation damage
 - Maintain customer relations

FORE WARNING TO A CRISIS

Examples of a crisis that can have warning signs include:

- Workplace violence (erratic or threatening employee behavior)
- Activism, protests, riots
- Product contamination
- Terrorism
- Natural disasters (earthquakes, floods, etc.)

UNIT FIRST RESPONDERS

- Search & Rescue Teams
- Unit Fire Services
- Medical Services
- Gate Management
- Unit Control Room

DISASTER CONTROL ROOM

The Industrial Unit Control Room and an alternate Control Room should be equipped to provide for any contingency. It is best to have a dedicated room and an alternate site.

If the room has multiuse, it must be available when needed. Ideally the Control Room should be on a UPS/backup power system. Typical equipment in the Control Room includes:

Phones – A primary line and at least one additional line is needed. More than 3 phones could result in a situation where there is too much noise in the Control Room. More phones in the vicinity of the Control Room and not inside are desirable. Ideally,

phones should be set up to rollover automatically to an open line in the Control Room if the main line is busy

Cell Phone – at least one cell phone is desirable. It could also be used to locate IRT members that may leave the Control Room.

Satellite Phone – Early in an incident land lines and cell phones may experience heavy use and become jammed. Each site and the corporate center should have at least one satellite phone.

NOTE: Satellite phones generally do not work inside – need line of sight to satellite.

DISASTER CONTROL ROOM

- Teleconferencing Equipment** - may be needed early in an incident if the team is not immediately able to assemble or to allow multiple participation in discussions
- Dedicated computer with internet and intranet access** – The crisis plan and critical information for specific sites or an anticipated crisis should be on the computer hard drive and / or a web site. Maps, weather, etc could be obtained from internet sites. Record the sites as favorites for quick access
- Laptop connection(s)** - to a printer, the internet, etc. .
- Printer** – connected to a desktop and accessible to laptops
- Video teleconferencing** - useful for follow-up site communication, but probably not during the emergency

DISASTER CONTROL ROOM

- Fax machine** – connected to a dedicated phone line
- Photocopier** – easily accessible to the Control Room
- TV with satellite connection** – provides ability to monitor the news
- Key office supplies** – pens, markers, flip charts, paper, etc
- LED Projector**
- Status Board**
- Clock** - multiple if more than one time zone is involved
- Sign in/out board** – track location of IRT team members

DISASTER CONTROL ROOM

Other considerations:

- A conference table to facilitate team meetings and for review of large maps, drawings.
- Assigned work stations for each key function, plus at least one "ad hoc" station for supplemental members.
- Hardcopy backups of key site or reference information. Although potentially out of date, such hardcopy documents often are more readily accessible in the incipient stages of disaster/crisis response.

CAPACITY BUILDING THROUGH MOCK EXERCISES







INDUSTRIAL VULNERABILITY PROFILE OF INDIA

1. India has 638 districts, 300 districts have Major Accident Hazard (MAH) units. 170 districts have more than 05 MAH Units.
2. A total of 1856 MAH Units in India (less the storages of hazardous substances, big warehouses, small factories). 'On Site' plans in place of only 1807 MAH Units. 49 MAH Units not even have 'On Site' Plans – Hope one of these not yours!!
3. Of 300 districts, 169 districts have 'Off Site' plans, but most NOT as per Schedule 12.
4. Mock Drills for 'Off Site' Plans rarely carried out.

STATUTORY PROVISIONS FOR CONDUCTING MOCK EXERCISES

1. MoEF Rules for 'On Site' and 'Off Site' Emergency Plans – 2001.
2. Section 6(2)(f) of DM Act, 2005 mandates NDMA to coordinate the enforcement and implementation of its policy & guidelines.
3. Section 6(2)(i) of the Act also mandates NDMA to take such preventive measures for the prevention of disasters or the mitigation or preparedness and capacity building for dealing with a threatening disaster situation or disaster as it may consider necessary – Mock Exercise one such measure.
4. NDMA Guidelines on Chemical (Industrial) Disaster reinforces MoEF Rules, to conduct mock drills for 'On Site Plan' at least once every six months and 'Off Site Plan' at least once every year.
5. NDMA Guidelines give out the formats for 'On Site' and 'Off Site' plans as Annexures.

NEED FOR MOCK DRILL

1. **To Inculcate Culture of Preparedness.**
2. **To Examine the Plans and SOPs of Identified Stakeholders (Industries/Govt/Non-Govt).**
3. **To Evaluate the Resource Status of various Departments.**
4. **To Coordinate the Activities of Various Agencies for their optimum utilization.**
5. **To use the Feed back to identify the gaps and improve the Resource Capabilities to Face Actual Disasters.**

STEPS

Step 1

1. Coordinating Conference

- (a) Delineating objectives of Mock Exercise.
- (b) Scope of Exercise.
- (c) Selection of the Industry/ District for Mock Exercise.
- (d) Date and Venue for Table Top and Mock Exercise.
- (e) Participants
- (f) Media Coverage.

Step 2

2. Table Top Exercise.

- Key First Responders, like DC, SSP, DMP and MD of Industry gives out outline of their response plans and resources available.
- Worst case scenarios are thereafter simulated. Scenarios are initially painted at the operational level of the industry for 'on site' plan. The operational staff, supervisory staff and the management respond to various injects. When the 'on-site' plan is declared 'off-site' by the District Magistrate, the injects are targeted at the DC/IC and other Stakeholders at District level like Director Industry, SSP, District Health Officer, Fire Officer, Public Services heads, NDRF Team Leader, Communication, Civil Defence, Home Guard, Red Cross, RTO, NGOs Public Relations etc. Responses are elicited and detailed discussion takes place.
- Details of Coordination and Safety are discussed.

Step

3. Mock Exercise.

- **Observers** are detailed and format for assessment issued. They are briefed on their roles during the Mock Exercise.
- **Self Assessment Formats** are given to all stake holders.
- **Scenarios** are formulated after due deliberations and the **Mock Exercise** is conducted by **painting of scenarios** in a sequential manner by the Observers in a Bottom-up approach.
- Actions are taken **on ground** by concerned stake holders by mobilizing requisite resources on orders of their own departments.
- Incident Command Post is established at district level for command and control.
- Relief Camp is established for evacuees.
- Surge capacity is created in nominated Hospitals and Medical Aid Posts are established at critical areas.

Step 4

After Action Report.

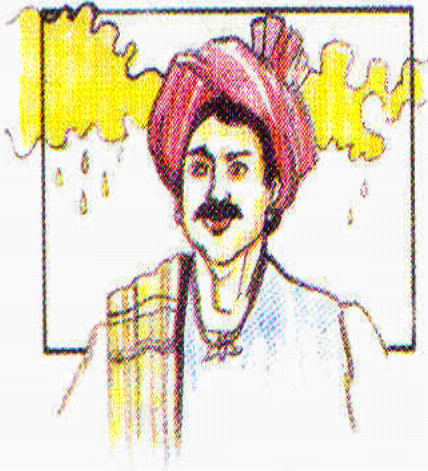
- Detailed debriefing session takes place after the Mock Exercise, where observers, organizers and stake-holders take part.
- The gaps identified are noted and a detailed after action report is made at the NDMA, which after approval is sent to the Chief Secretary and MDs of Industries for taking follow-up action.
- Monitoring is done at NDMA to ensure that the identified gaps are filled in a time bound manner.

SUMMARY OF MOCK EXERCISES SINCE 2006

Sl.	Hazard	Coordinating Conference	Table Top	Mock Exercise
1.	Floods	Fifty-five	Fifty-five	Fifty-five
2.	Earthquake	One hundred and three	One hundred and three	One hundred and three
3.	Cyclone	Twenty-five	Twenty-five	Twenty-five
4.	Chemical (incl Pet)	One Hundred and ten (incl 35 Pet)	One Hundred and Ten (Incl 35 Pet)	One hundred and ten (incl 35 Pet)
5.	School Safety	One Hundred Forty - Three	-	One Hundred Forty-three
6	Terrorist Related	Thirty-five	Thirty-five	Thirty-five
7.	Urban Fires	Nineteen	Nineteen	Nineteen
8.	Nuclear Facilities	Six	Six	Six
9.	CWG,WC & IPL	Sixty-five	Sixty-five	Sixty-five
	Total	561	414	561

STATUS OF THE INITIATIVE

- Total Mock Exercises Done so far - 561.
- States/UT covered - 35
- Districts covered - 211.
- Schools Covered sensitized - 143/225.
- MAH Industries Covered - 139
- Petroleum Industries - 35
- Industries Sensitized - 226.
- Industrial workers trained - 3,88,000
- Community sensitized - 13.55 > 47.3 lac
- Extensive coverage by print & electronic media.
- NDMA conducted mocks for CWG, Hockey World Cup, Cricket World Cup, IPL, DMRC, Kolkata Metro, DIAL, BIAL, INSARAG Regional Exercise on Earthquake.
- Increased demand from States, Public and even from private sector.



ಅವಸರಮಾಡದೆ ಶಾಂತವಾಗಿ ವಿಚಾರಮಾಡಿ
Be calm, don't get panicky

ಗಾಳಿ ಯಾವ ದಿಕ್ಕಿಗೆ ಚಲಿಸುತ್ತಿದೆಯೆಂಬುದನ್ನು
ಮನದಟ್ಟು ಮಾಡಿಕೊಂಡು ಚಲನೆಯಿಲ್ಲದ
ಅಡ್ಡ (ಲಂಬಕ) ದಿಕ್ಕಿನಲ್ಲಿ ನೀವು ಚಲಿಸಿರಿ.

Decide wind direction. Move away
perpendicular to wind direction.



ನಿಮ್ಮ ಮೂಗನ್ನು ಒದ್ದೆಯಾದ ಬಟ್ಟೆಯಿಂದ
ಮುಚ್ಚಿಕೊಂಡು ಶ್ವಾಸವನ್ನು ಬಟ್ಟೆಯ
ಮುಖಾಂತರ ಎಳೆದುಕೊಳ್ಳುವುದು.

Cover your nose with wet cloth and
breathe through it.



