

EMERGENCY RESPONSE PROCEDURE

An emergency occurring at any installation can lead to injury, loss of life or damage to property along with impact on environment. This may be within the installation or may be both inside and outside of it. The reason for development of such emergency may be due to abnormal functioning of the devices within the installation or caused by third party or by natural factors. If the emergency becomes uncontrollable and may lead to damage to life and property in the premises and its neighborhood, it may be defined as a "disaster".

OBJECTIVES OF THE EMERGENCY RESPONSE PROCEDURE

- A. To control, localize and eliminate the hazards in minimum time.
- B. To minimize damage to property and environment.
- C. To render medical treatment to the injured quickly
- D. To speed up the rescue and head count operation
- E. To safe guard others by timely evacuation
- F. To ensure safety of the installation and persons before they re-enter and resume the work.
- G. To restore normalcy as quickly as possible

<u>Category – I:</u> Minor emergencies, which may or may not cause damage or injuries and which are not likely to develop to a magnitude that warrants evacuation and can be controlled effectively using the resources available within the factory.

<u>Category – II:</u> Major emergencies which may or may not cause damage or injuries within the plant / section of the factory but are likely to develop or have developed to a magnitude that warrants evacuation from the plant / section and can be controlled effectively using resources within the factory.

<u>Category – III:</u> Major emergencies, which may cause material damage or injuries and likely to have an impact on entire factory. Such emergencies may be controlled using resources within the factory and available in the near industries, fire brigades.

<u>Category – IV:</u> This type of major emergency is likely to have an impact on a large geographical area perhaps involving the entire local area. Resources from outside may be required to control such emergency. During such emergency, the site management has to coordinate with District Emergency Authorities to initiate actions as per Off-site emergency plan apart from initiating actions as per its "On-site emergency management plan".

<u>Category – V:</u> Major emergencies that can occur outside the plant / factory during transportation of raw materials /product. Assistance from industry, police authority and fire brigades may be required to control such emergencies. The management has also to coordinate with the District Emergency Authority to initiate actions as per "Off-site Emergency Management Plan.

AN EMERGENCY SITUATION CAN ARISE DUE TO

- 1. FIRE
- 2. EXPLOSION
- 3. SERIOUS ACCIDENT
- 4. TOXIC RELEASE
- 5. MAJOR NATURAL CALAMITY LIKE FLOOD, EARTHQUAKE ETC.

PERSON DISCOVERING INCIDENT

- 1. Inform nearest available in-charge / Officer.
- 2. If not available, raise fire alarm.
- 3. Shout loudly to draw attention of other colleagues
- 4. Tackle fire/emergency with colleagues / others who are trained in Firefighting/emergency.
- 5. Direct Fire Squad to the spot.







ACTION BY TEMPORARY INCIDENT CONTROLIER-

- 1. Rush to the spot.
- 2. Raise normal fire alarm if not raised. Depute a person to guide Fire Squad.
- 3. Ask other Officers / Supervisors to take over as temporary incident controller.
- 4. Organize crash shutdown of critical operations.
- 5. Contact and brief Site Head about the latest scenario.
- 6. Carry out all Emergency functions of Site Head till he arrives.
- 7. Instruct non-essential staff to assemble at Assembly point.
- 8. Arrange roll call at Assembly point and report missing persons to Forward Control Center.

ACTION BY SITE HEAD -

- 1. Rush to the spot for assessment of situation.
- 2. Ensure control / isolation of Hazard source.
- 3. Assess and keep contact with Business Head.
- 4. Monitor progress of Emergency action.
- 5. Institute search for missing persons.
- 6. Ensure evacuation of non-essential staff.

EMERGENCY CONTROL CENTRE

This is a command post which serves as a liaison for co-ordination of emergency Services. Site head or his nominee should take control of this office during emergency.

Essential items for Control Centre -

- a. Sufficient telephones for communication.
- b. Telephone numbers of all relevant persons.
- c. Site map
- d. At least 2 / 3 senior officials to assist Site Head.
- e. Emergency requirement of PPE.
- f. MSDS of hazardous chemicals used in chemical plant

IN-HOUSE FACILITIES

- 1. Communication systems (including Public Address System)
- 2. Emergency Siren
- 3. Transport for evacuation of plant personnel
- 4. Assembly area
- 5. First Aid facility including ambulance at site
- 6. Fire Fighting and rescue arrangements
- 7. Security arrangements
- 8. Breathing air sets and facilities for bottling of breathing air.
- 9. Laboratory facilities

ROLE OF SITE HEAD / PERSONNEL MANAGER AS INCIDENT CONTROLLER

A. FIRE

- 1. Rush to the spot and take charge of rescue and control work.
- 2. Assess emergency and instruct all nearby Plants in danger to shut down.
- 3. Arrange isolation of electrical mains except that of water pump required for water supply
- 4. Take charge of CC (Control Center).
- 5. Activate Major Emergency Procedure and ensure Personnel Safety, minimize damage to plant, material and
- 6. Evacuation of non-essential employees to Assembly point by confirming wind direction.





- 7. Execute rescue / firefighting operations and search for casualties, see that CC is manned by some one senior at all time.
- 8. Ensure outside emergency forces and key personnel have called in.
- 9. When situation is under control announce termination of emergency.
- 10. Provide facts and materials for the enquiry.

B. **EXPLOSION**

- 1. Ensure Site Head / Manager Personnel rushes to the spot when siren is sounded and take charge.
- 2. Ensure that area is cordoned off, Plant put off. All are evacuated to the assembly Point.
- 3. Organize preventive measures such as removal of dangerous materials from other buildings to safer location.
- 4. Guide and instruct the fire squad to conduct rescue and search. Arrange medical care for the injured. Check and finalise the casualty list.
- 5. Ensure that all the wreckage and debris are left untouched except for the rescue of the injured persons or the recovery of dead bodies, if any.
- 6. Be sure that there is no possibility of secondary explosion before anybody is allowed to enter the affected area.
- 7. If post explosion, fire is likely to spread to the areas, contain it by isolating the affected area and cooling the areas around the site.
- 8. Take charge of CC.

C. TOXIC RELEASE

- 1. Identify the source of leak, if possible
- 2. Find out facts about precise location, materials involved and quantity and wind direction.
- 3. Take charge of the site and direct efforts to contain and control the leak by getting Isolating valves closed, specific machineries switched off etc. If leak isolation is not possible, arrange transfer of the material into another tank of low level and pressure, if possible.
- 4. Rush the affected persons for medical care.
- 5. Shut down the plants in danger.
- 6. Get the movement of vehicles in the downwind direction stopped / diverted. Cordon off the area.
- 7. Assess the effects of release in terms of fire, explosion, toxicity and take preventive steps.
- 8. Go to CC, inform CC about the need for emergency and about possible escalation to neighboring environment. Evacuate all persons to Assembly Point. Arrange roll call. Search for missing persons.
- 9. Fire services to be asked to perform specific task only. They must not be allowed to fight the toxic release on their own.
- 10. When situation is controlled, inform CC to announce termination of emergency.
- 11. Record all possible information about the toxic release and causalities.

D. NATURAL CALAMITY

Actions are almost identical to that of Explosion.

E. SERIOUS ACCIDENT

- 1. Ensure Site Head / Manager Personnel rushes to the spot when siren is sounded.
- 2. Take charge of the site and cordon off the area.
- 3. Organize search, rescue, first-aid and removal of injured to safe areas.





- 4. Call for medical and fire squad / brigade help, if and when need.
- 5. Check and finalize casualty list.
- 6. Record all relevant information.

<u>ASSEMBLY POINTS</u> - All persons within site and not allotted with any specific assignment for emergency tackling, will have to go to declared "assembly point". In sites handling toxic chemicals, there should be at least two assembly points. <u>TERMINATION OF EMERGENCY</u> Only Site Head or his nominee is authorized to decide about termination of emergency and will advice to operate all clear siren.

ROLL OF FIRE AND SECURITY SERVICES

A. **SAFETY OFFICER**

- 1. Rush to spot, ensure overall safety of emergency operations.
- 2. Standby with Incident Controller at CC.
- 3. Facilitate communication from CC.
- 4. Contact member of Emergency Task Force for service.
- 5. Arrange safety equipment's
- 6. Assist evacuation.

B. SECURITY OFFICER

- 1. Take control of entry gates.
- 2. Don't allow visitors to enter site till emergency exists.
- 3. Allow free movement of emergency vehicles like external fire brigade etc.
- 4. Tackle gathering of outsiders at gates.

C. Emergency Task Force

There should be declared emergency task force members for -

- 1. Fire fighting
- 2. Rescue
- 3. First aid.

They should be given adequate training in their respective field and will perform in case of emergency.

D. **MEDICAL OFFICER**

- 1. Rush to Medical Centre and organize emergency medical services.
- 2. Ensure that an ambulance is rushed to incident area.
- 3. Ascertain nature/number of casualties.
- 4. Received and treat casualties, arrange quick transfer to outside hospitals, if required.
- 5. Inform Control Centre on magnitude of injury and their identity.
- 6. If Medical Centre has to be evacuated due to toxic release effect, shift to other location with advice from
- 7. Contact CC and obtain assistance for Managerial supervision.
- 8. Medical Centre will be assisted by trained first aiders.

ENGINEERING FUCTION

ENGINEERING MANAGER

- 1. Rush to the spot
- 2. Obtain all necessary information regarding Emergency to provide Engineering requirements.
- 3. Mobilize resources in Engg. team.
- 4. Be available at CC

PERSONNEL FUNCTION

- 1. Obtain all necessary information regarding emergency particularly pertaining to the function group.
- 2. Get clearance from Site Head for conveying declaration of major emergency to Civic Authorities.
- 3. Assess areas expected to be affected by the Emergency, particularly outside the works.
- 4. Assess and organize nature of assistance required from Civic Authorities, Police.





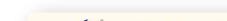
- 5. Standby with Site Head and assist him in contacting Civic Authorities, external emergency services and Communicating to surrounding residents through police force.
- 6. Liaise with Civic Authorities.
- 7. Issue authorities statements and handle media personnel after clearance from Site Head or Business Head.
- 8. Deal with casualty information
- 9. Extend administrative support to medical Centre.

SITE EVACUATION

- 1. If incident goes out of control Site Head will advise site evacuation.
- 2. Use declared gate route as Emergency Escapes.
- 3. Arrange vehicles for evacuation if needed.

Distil Helpline









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