

## **EMERGENCY RESPONSE PLAN**

### **1.1.1 Disaster Management Plan**

#### **1.1.1.1 Definition**

A major emergency in a work is one, which has the potential to cause serious injury or loss of life. It may cause extensive damage to property and serious disruption both inside and outside the work. It would normally require the assistance of emergency services to handle it effectively.

#### **1.1.1.2 Scope**

The aim of hazard control and disaster management is concerned with preventing incidents through good design, operation, maintenance and inspection, by which it is possible to reduce the risk of an incident, but it is not possible to eliminate it. Since, absolute safety is not achievable; an essential part of major hazard control must also include mitigating the effects of a major incident.

An important element of mitigation is emergency planning, i.e. recognizing incidents as soon as possible, assessing the consequences of such incidents and deciding on the emergency procedures, both on-site and off-site, that would need to be implemented in the event of an emergency.

#### **1.1.1.3 Objective**

The overall objectives of the emergency plan will be:

- a) To localize the emergency and, if possible eliminate it; and
- b) To minimize the effects of the incident on people and property.
- c) Restore normalcy at minimum possible time

Elimination will require prompt action by operations and works emergency staff using, for example, fire-fighting equipment, water sprays etc. Minimizing the effects may include rescue, first aid, evacuation, rehabilitation and giving information promptly to people living nearby.

To deal with the above emergencies, the Emergency Plan is prepared.

#### **1.1.1.4 Onsite Emergency Plan**

#### **1.4.3.4.1 Disaster control Management system**

Disaster Management plan plays an important role in combating emergency in a systematic manner. In addition; the implementation of an Emergency Response Plan relies on a number of response functions, which deal with different aspects of emergency, with the most important ones being:

- ⌘ Communication and Co-ordination
- ⌘ Emergency procedure
- ⌘ Fire and Rescue (Emergency Mitigation) Emergency Control Team at Incident Site
- ⌘ Medical Services
- ⌘ Security
- ⌘ Administration (Logistics and Welfare)
- ⌘ Co-ordination with external agencies.

#### **1.1.1.5 Onsite Emergency Plan**

The Onsite Emergency Management Plan is a master plan which contains the emergency organization structure, responsibilities of key members, communications means and emergency response strategies to control a range of major incidents.

##### **1.1.1.5.1 Risk Scenarios at Nuvoco Vistas Corp Ltd.**

Potential and high hazard situation will be treated as major emergency. Emergency will be declared by the Head-EHS after assessing the situation.

The prime risk scenarios as evaluated from hazard identification are:

**Fires:** Fire at fuel storage yard, Trash catching fire, diesel fire, cable fire, Paint fires, construction waste fires, electrical fire in panels, transformer oil fire, Fire in administrative building, combustible gas fire, and flammable liquid fire, etc.

**Explosion:** LPG cylinder explosion, air receiver cylinder bursting, bomb explosion, gas pipe line bursting, bursting of new fuel pipe line during testing, etc.

**Leakage:** Leakages of toxic gases, combustible gases etc.

**Spillage:** spillages of acids / chemicals / flammable liquids/ non-flammable liquids etc.

**Contamination:** Drinking water contamination with poisonous chemicals.

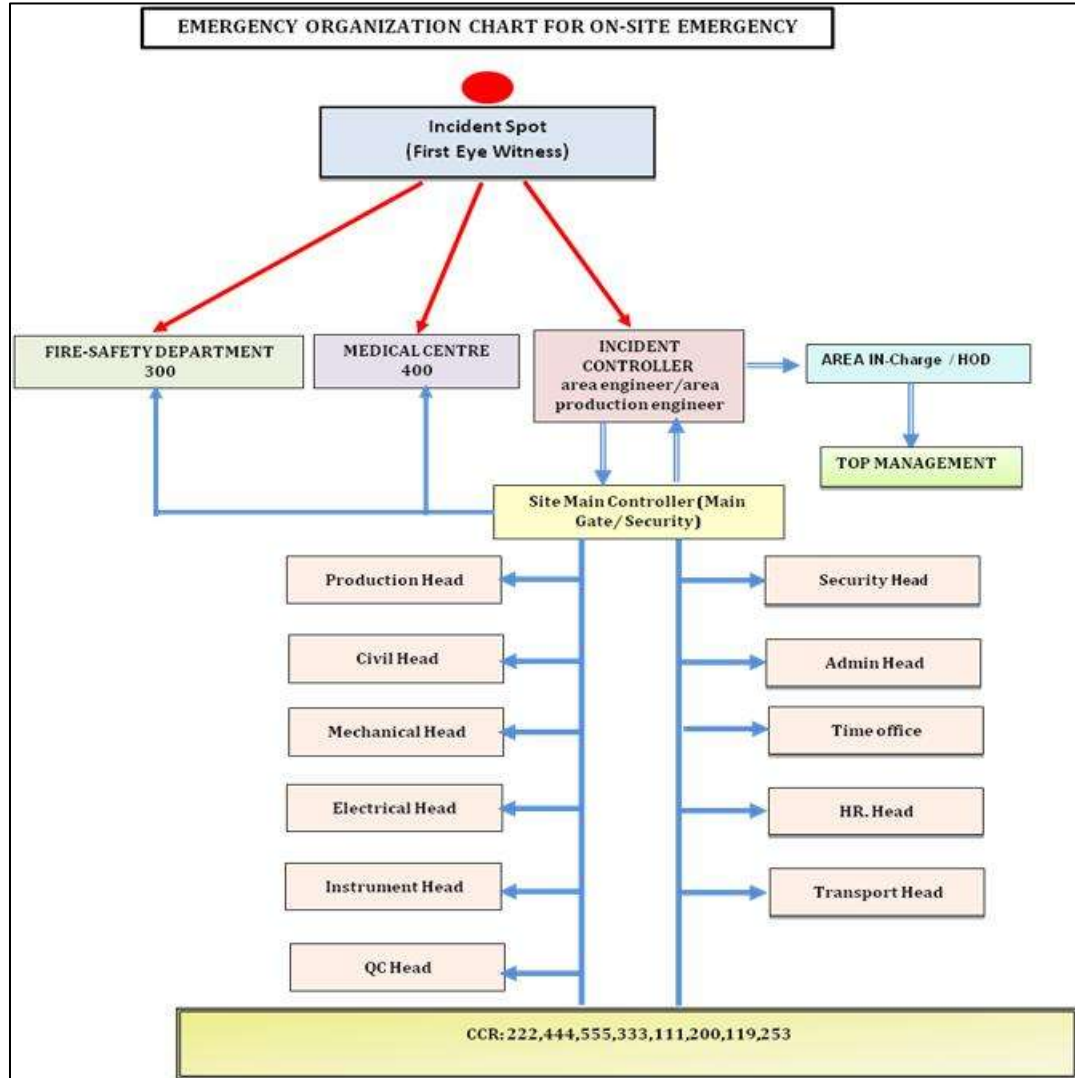
**Construction disasters:** Building collapse, form work collapse, rubbish chute choke, scaffolding collapse, tower crane collapse, mobile crane/crawler crane topple, Major electrical shutdown (during night time)

**Road emergencies:** Road accidents

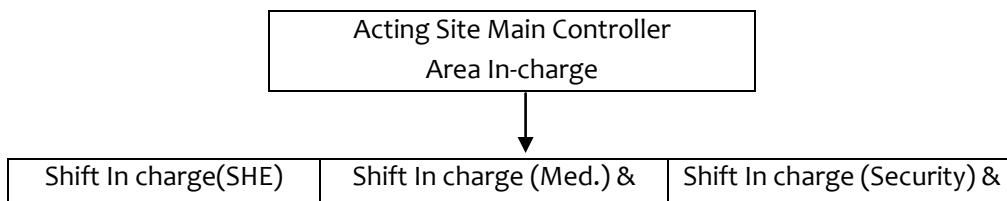
**Others:** Cyclonic winds, Flooding, Food poisoning, epidemics, earth quake, Landslides etc.

**1.1.1.5.2 Emergency Organization and its Responsibilities**

Emergency organization during normal working hours is as below:



Emergency organization during silent hours is as below: During silent hours the duty team will carry out their functions with available manpower until full-fledged organization is available at the site.



Shift Staff	Shift Staff	Shift Staff
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### **Responsibilities of Emergency Organization**

#### **A. Site Main Controller (SMC) (Responsibilities and Duties)**

Site In charge will be the SMC. As soon as the site main controller is aware of the emergency, he will proceed to the emergency control center. On arrival, he will:

- ⊗ Relieve the site incident controller of responsibility for overall control.
- ⊗ Ensure that the outside emergency services are called in.
- ⊗ Ensure that key personnel are called in.
- ⊗ Exercise direct operational control of those parts of the work outside the affected area.
- ⊗ Maintain a speculative continuous review of possible developments and assess these to determine most probable course of events.
- ⊗ Direct the shutting down of equipment and evacuation of areas in consultation with the site incident controller and key personnel.
- ⊗ Ensure the casualties and receiving adequate attention. Arrange for additional help, if required. Ensure that relatives are advised.
- ⊗ Liaise with Chief Officers of the fire and police services and with the experts on fire, safety, health etc. provide advice on possible effects on areas outside works.
- ⊗ Where the emergency is prolonged, arrange for the relief of personnel and the provisions of catering facilities.
- ⊗ Ensure the proper consideration is given to the preservation of evidences for investigations
- ⊗ Ensure with site incident controller about instructions of “ALL CLEAR” communication.
- ⊗ Ensure and control rehabilitation of affected areas.
- ⊗ Communication to Nirma Ltd. followed by a written report about the accident, including mitigation action taken.

#### **B. Site Incident Controller (SIC) (Responsibilities and Duties)**

Site SHE Head will be SIC. As soon as the site incident controller is aware of the emergency and its location, the site incident controller will proceed to the scene and he will:

- ☞ Assess the scale of emergency and decide if a major emergency situation exists or is likely. On this decision, he will activate the subsequent major emergency procedure.
- ☞ Direct all operations within the affected area with the following priorities:
  - ☞ Secure the safety of personnel
  - ☞ Minimize damage to equipment, property and the environment
  - ☞ Minimize loss of material
  - ☞ Direct rescue and firefighting operations
  - ☞ Ensure that the affected area is searched for unattended casualties.
  - ☞ Ensure that all non-essential workers in the affected area evacuate to the appropriate assembly point.
  - ☞ Direct the outside emergency services if called for emergency.
  - ☞ Pending the arrival of the site main controller, assume the duties of the post and, in particular:
    - Direct the shutting down of equipment and evaluation of areas likely endangered by the emergency.
    - Ensure that the outside emergency services have been called in.
    - Ensure that key personnel have been called in.
  - ☞ Report all significant development to the site main controller. Provide advice and information, as required, to the senior officer of the Fire Brigade.
  - ☞ Ensure the head counting for personnel.
  - ☞ Control traffic movement within the works.
  - ☞ Ensure that chronological record of the emergency to be maintained.
  - ☞ Have regard to the need to preserve evidence that would facilitate any subsequent esquire into the cause and circumstances of the emergency.
  - ☞ Direct the instructions about the “ALL CLEAR” communication through mobile phones & walkie-talkie.

### **C. Duties of the Key Persons of the Assistance Groups**

- **Duties of Head – HR & ADMIN:**

- ☞ He handles the evacuation of the personnel from the emergency situation to the Assembly point.
- ☞ He takes the head count of the Evacuated personnel.
- ☞ He will assist the site controller in liaise with the local emergency authorities.

- ⌘ Manage traffic movement towards the incident area and clears way to the Emergency vehicles.
- **Duties of Head – Electrical:**
  - ⌘ He will be the heading the Shutdown.
  - ⌘ After receiving the communication from the Incident controller, he will arrange to stop the power supply to the site and shutdown of the other equipment at site as per requirement.
  - ⌘ After receiving the “All Clear” communication from the incident controller, he will resume the power supply to site.
- **Duties of Head-Mechanical**
  - ⌘ He will be the heading the heavy equipment
  - ⌘ After receiving the communication from the Incident controller, he will arrange to properly access at site.
  - ⌘ After receiving the “All Clear” communication from the incident controller, he will resume the tool tackles (welding machine, cutting machine, grinding machine etc.) to site.
- **Duties of the fire fighting team**
  - ⌘ After receiving the emergency communication, they will immediately report to the Incident controller.
  - ⌘ As per his instruction they will mobilize the Fire fighting equipment’s and Leak control kits etc.
  - ⌘ They will control the fire & Gas leakages.
  - ⌘ In emergency situation other than Fire & Gas leakages, they will help the first aid team.
- **Duties of the first aid team**
  - ⌘ After receiving the emergency communication First aid team will immediately reports to the Incident controller
  - ⌘ First aid team will remove the casualties from the incident area to the safe place.
  - ⌘ They will provide the immediate first aid to the casualties.
  - ⌘ Help them to transport to the medical aid if warrants.
- **Duties of Person who first detects a Fire / Accident**
  - ⌘ On noticing a fire or accident he will immediately try to alert the personnel in the vicinity by shouting. He will notify the location of fire / accident.

- ⌘ He will try to control the emergency by using proper fire & safety equipment's / installations at the site.
- ⌘ If possible, he shall try to salvage the equipment's and materials not involved in the fire / accident.
- **Duties of area incharge of Emergency Affected Area**
  - ⌘ He will immediately proceed to the scene of incident to confirm and assess the situation.
  - ⌘ He will notify the nature of emergency to the fire station and security office to inform SIC / SMC and the concerned persons.
  - ⌘ Area In-charge should clearly indicate to fire station and security office about
    - I) Nature of emergency
    - II) Location of emergency
  - ⌘ He will ensure that all hot jobs including welding, cutting, grinding, chipping, open fire heating, etc. are stopped in the area.
  - ⌘ He will coordinate the actions of site emergency services, maintenance services and other services for quick control of the situation, he will also perform emergency control measures as per directions from SIC / SMC.
  - ⌘ He will furnish the full details about the incident to the Senior Management and Safety Officer, SMC / SIC, and other emergency services at site.
  - ⌘ He will set up an emergency control post on site for team leaders of assistance groups from where the control and direction of the emergency operation is safe and he will arrange some communication media e.g. telephone at the emergency control post.
  - ⌘ He will keep himself in constant touch with the emergency post and continue to pass on information / receive direction from emergency post to the concerned personnel.
  - ⌘ He will ask for spare manpower from the other area in-charges of the unaffected areas for the help in emergency operations, if required.
  - ⌘ He will announce through paging system or any other way, in the concerned affected area for evacuation of the personnel to their designated assembly point, if required.
- **Duties of Area in charge of Unaffected Area in Emergency**
  - ⌘ After getting information from emergency control Post of affected area he will send the spare persons from his area and report to the emergency post on site.
  - ⌘ He will render all necessary help to the in-charge of the affected areas in tackling and controlling the emergency situations as directed from the control post.

☞ He will maintain normal operating conditions of his equipment's, until gets the instructions from emergency control post / SMC / SIC.

- **Duties of Concerned Section Head**

On receipt of information of emergency:

☞ He will ensure about the steps to localize the hazards and decide about the operations of various equipment's and units at the site. If necessary, he will ensure the safe shutdown of the plant, so as to stop the spread of hazard, with the consultation with SM / SIC.

☞ He will ensure to give the inventory of hazardous materials and operations hazards to various assistance groups for emergency handling.

☞ He will look after the emergency operations in the concerned area.

- **Duties of Staff in affected areas**

☞ They shall act as per instructions of their In-charge. Trained personnel will be nominated to assistance Fire fighters to fight the fire. Other persons will take care of their areas as usual, unless otherwise directed by the Area In-charge.

☞ They are expected not to be panicky but remain calm. If called for evacuation they will follow instructions in an orderly disciplined manner.

☞ If directed to evacuate, the Area In-charge may direct them to safe shutdowns of running machines and evacuate in a disciplined manner.

☞ After evacuation they will collect at the nearest specified assembly point and await further instructions from the Area In-charge.

☞ Shall see that the persons assigned with specified duties in an emergency are not disturbed or obstructed.

- **Duties of the Other Staff in Unaffected Area**

They will follow the emergency signals and instructions given by In-charge / SMC / SIC.

☞ They will not leave their place of work and will continue the routine work.

☞ They are expected not to be panicky but remain calm. If called for evacuation they will follow instructions in an orderly disciplined manner.

☞ If directed to evacuate, the Area In-charge may direct them to safe shutdowns of running machines and evacuate in a disciplined manner.

☞ After evacuation they will collect at the nearest specified assembly point and await further instructions from the Area In-charge.



☞ Shall see that the persons assigned with specified duties in an emergency are not disturbed or obstructed.

- **Procedures to be followed during non-working hours**

The help of most of the personnel listed earlier will not be available and hence a separate working procedure has to be followed:

☞ All applicable duties for silent hours / enumerated earlier will apply.

☞ In-charge of the affected area will handle the situation with the available manpower and services, till the designated authorities of emergency organization reach the emergency site.

#### **1.1.1.5.3 Emergency Control Post**

Emergency control post will be set up at the time of any major emergency, by the in-charge of the concerned area, for team leaders of assistance groups, from where the control and directions of the emergency operation is safe. Communication media e.g. telephone will also be provided at the control post.

#### **1.1.1.5.4 Assembly Points**

The assembly points are provided so as to cover the whole site area with the consideration of wind direction, nearby paging facility and more than one road approach on each point.

Assembly No. 1	-	Near Plant Time Office
Assembly No. 2	-	Near Plant Power plant
Assembly No. 3	-	In front of Plant CCR
Assembly No. 4	-	In front of Crusher Area office

#### **1.1.1.5.5 Communication System**

Communication is crucial factor in handling an emergency. It is the practice at many plants that any employee can raise an emergency alarm, so allowing the earliest possible action to be taken to control the situation. The possible communication can be given by

- a) By telephone,
- b) By shouting,
- c) By messenger,
- d) By walkie-talkie

Concerned SHE In-charge will inform the Fire Station through the quickest way possible for quick response and Security Office for passing of the information to the concerned persons and services. The following persons and services inside the work place will be informed in case of major emergencies like – major fire, major accident, major spillage, gas leak, cyclone, etc. These authorities and services will be notified by Security Officer as per the direction by the Head - SHE of the Site.

- a) Fire Station
- b) Medical Centre / Medical In-charge
- c) Plant head
- d) SHE Staff
- e) Security Staff

#### **1.1.1.5.6 Basic Steps for Handling the Various Emergencies**

##### **A. Emergency Evacuation Procedure**

- ☞ On receipt of evacuation instructions, the personnel in the affected area shall proceed to their designated assembly point.
- ☞ On receipt of evacuation, personnel shall close all the working gadgets, taking care that closing or shutting down operations does not lead to additional hazards.
- ☞ When the emergency is announced, one security guard at the site gate will be posted by security section and he will secure the vehicle gates halting all routine traffic and material movement into the site. This guard shall clear the road from the main gate so that if outside emergency vehicles are needed the road be clear.
- ☞ All personnel of the site will remain at their announced assembly points until the clear signal is announced.
- ☞ When the emergency announcement has been made, outside contractors on site will be instructed to report to the gate. Their supervisors should make a count of all personnel and report this data to the security at the gate.
- ☞ Evacuation of the people will be especially in the opposite direction of exposure / wind direction.

##### **B. In Case of Fire**

In case of emergency, if required, help would be taken from nearby city fire station and industries under mutual aid arrangement, in addition to our own firefighting systems as fixed installations and other firefighting equipments.

### **C. In Case of Collapse of Building, Shed or Structure**

In case of collapse of Building, Shed or Structure raise the emergency alarm, inform the Head-SHE and evacuate the area. Call Fire Brigade to assist in removal of debris from the site and immediately arrange any medical help if required.

### **D. Liquid Spill Control Procedure**

- ☞ Any spillage will be immediately localized and the area cordoned off.
- ☞ Area In-charge will announce about the spillage through the public address system and inform to the Fire Station, Medical Centre, Security and Site In-charge.
- ☞ Vehicular traffic will be stopped by the security staff in the affected area of the plant.
- ☞ It will be kept in mind that chemical spillage will not be drained to the common drainage system from the site.

### **E. Injury Procedure**

- ☞ In case of injury to any member, information will be sent to Medical Centre.
- ☞ First aiders will give the first aid at Emergency area.
- ☞ First aiders will advise medical attention for the injured.

### **F. Storm**

Area In-charge will take the following actions in case of storm.

- ☞ All loose, light objects will be removed from the site, which could become hazardous missiles during high winds.
- ☞ Buckets, ladders, maintenance materials and other like things will be placed in the safe place.
- ☞ Hydra, trucks, welding machines, etc. will be placed at safe positions / places.
- ☞ All construction materials i.e. beams, pipes, power equipment's etc. which cannot be moved to a safe location, they will be lashed in place in the best possible manner known.

### **G. Riot or Civil Disturbances Procedure or Bomb Threat or Terrorist Attack**

If there are persons on or near company property with the suspected intent of causing damage to the property, injury to the plant personnel, disruption of normal operations, etc. The information will be given to SH (P&A) / SH (Security) and the following steps will be taken:

- ☞ Security In-charge will be instructed to give the related details and the police services will be informed, if required.

- ☞ The staff on duty or other personnel as given under plant personnel emergency notification list will be called for alertness.
- ☞ Security In-charge will instruct to the security to close and lock all the site entry gates.
- ☞ It will be ensured that no unauthorized person is allowed access to the site without positive identification by the gate security staff & as per instructions given by Head HR & Admin
- ☞ Emergency vehicles will be kept ready.
- ☞ Medical staff at the Medical Centre will be alerted.
- ☞ Fire & Safety staff will be alerted.
- ☞ All Area In-charges of the site will be alerted.

#### **H. Land Slide, Floods, Earthquake, And Other Natural Calamities**

In case of a land slide, earthquake or any other natural calamity, the incident controller will immediately inform the Main Site controller, who will contact the Corporation (VMC), and police for remedial actions. NIRMA will also be immediately informed to apprise them of the situation.

- ☞ The staff on duty or other personnel as given under plant personnel emergency notification list will be called for alertness.
- ☞ Emergency vehicles will be kept ready.
- ☞ Medical staff at the Medical Centre will be alerted.
- ☞ Fire & Safety staff will be alerted.
- ☞ All Area In-charges of the site will be alerted.

#### **I. Review of Emergency**

A team, under the chairmanship of Plant head will review the situation and decide the actions to be taken to mitigate the effect and restart the operations without losing any time.

#### **1.1.1.5.7 Emergency Contact Numbers: Nuvoco Vistas Corporation Limited**

List of telephone numbers for emergency situations are given below:

<b>EMERGENCY CONTACT NUMBERS – EXTERNAL</b>			
<b>S. NO.</b>	<b>Area</b>	<b>Contact Person</b>	<b>Contact No.</b>
1.	Fire Brigade inside Plant	Safety Department	9587887331,9587887328
2.	Fire Brigade outside Plant	Jaitaran fire station	101/9414972949
3.	Police Station(Jaitaran)	Bhawarlal/Jaitaran police station	9530420778/0293922232

4.	Hospital Nimbol	Dr. Mahveer Singh	9001716009
5.	Hospital Jaitaran	Dr. Devendra Solanki	9460692701
6.	Hospital Jodhpur	MDM Hospital	02912438655/02912434052
7.	Govt. Ambulance Number		108
<b>EMERGENCY CONTACT NUMBERS - INTERNAL</b>			
1.	First Aid	First Aid Center	9587887328
2.	Ambulance inside Plant	Ambulance	9587887328
3.	Safety Dept./Emergency Control Centre	Safety Department	9587887331
4.	Administration Dept.	Mr Subhash Jha	7085888782
		Mr. Manoj Gupta	8875018849
5.	Electrical Sub Station	Mr. Electrical shift	9587887311
6.	Security Head	Mr Subhash Jha	7085888782
7.	Security Shift	Security Officer	9587887327