# RISK ASSESSMENT
# &
# DISASTER MANAGEMENT PLAN

**FOR**

## "UNIVERSAL ROYAL RESIDENCY"

**Residential Building Project**
**Located at Danapur - Khagaul Road at**
**Mauza Babakkarpur**
**Thana- Danapur**
**PATNA**

**By :**

UNIVERSAL
GREEN INFRA LTD.

Project Developer:

**M/s Universal Green Infra Ltd**
**Saguna More, Balaji Nagar, P.S & P.O – Danapur**
**Dist. Patna – 800 013**

# INDEX

## 1.0 INTRODUCTION ;

Risk management is activity process about defining sources of uncertainty (risk identification), estimating the consequences of uncertain events/conditions (risk analysis), generating response strategies in the light of expected outcomes and finally, based on the feedback received on actual outcomes and risks emerged, carrying out identification, analysis and response generation steps repetitively throughout the life cycle to ensure that the project objectives are met.

Risk is often referred to as the presence of potential or actual threats or opportunities that influence the objectives of a project during construction, commissioning, or at time of use. Risk is also defined as the exposure to the chance of occurrences of events adversely or favorably affecting project objectives as a consequence of uncertainty.

## 2.0 DISASTER & EMERGENCY MANAGEMENT PLAN

Emergency prevention through good design, operation, maintenance and inspection are essential to reduce the probability of occurrence and consequential effect of such eventualities. However, it is not possible to totally eliminate such eventualities and random failures of equipment or human errors, omissions and unsafe acts cannot be ruled out. An essential part of major hazard control has therefore, to be concerned with mitigating the effects of such Emergency and restoration of normalcy at the earliest.

The overall objective of an Emergency Response Plan (ERP) is to make use of the combined resources at the site and outside services to achieve the following:

1. To localize the emergency and if possible eliminate it;
2. To minimize the effects of the accident on people and property;
3. Effect the rescue and medical treatment of casualties;
4. Safeguard other people;
5. Evacuate people to safe areas;
6. Informing and collaborating with statutory authorities;
7. Initially contain and ultimately bring the incident under control;

8. Preserve relevant records and equipment for the subsequent enquiry into the cause and circumstances of the emergency;
9. Investigating and taking steps to prevent reoccurrence

The ERP has therefore to be related to the identification of sources from which hazards can arise and the maximum credible loss scenario that can take place in the concerned area. The plan takes into account the maximum credible loss scenario-actions that can successfully mitigate the effects of losses/emergency need to be well planned so as they would require less effort and resources to control and terminate emergencies, should the same occur.

## 3.0 RESPONSE IN CASE OF EARTHQUAKE

Response Procedures for Occupants

If indoor

1. Take shelter under heavy furniture or against an inside wall and hold on
2. Stay inside: the most dangerous thing to do during the shaking of an earthquake is to try to leave the building because objects can fall on you.

If outdoors

Move into open, away from building, streetlights and utility wires. Once in the open, stay there until the shaking stops.

After the quake

1. After the quake be prepared for aftershocks
2. Although smaller than the main shock, aftershocks cause additional damage and may bring weakened structures down. Aftershocks can occur in the first hours, days, weeks or even months after the quake.

Help injured or trapped persons:

1. Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. Call for help.
2. Remember to help those who may require special assistance-infants, the elderly and people with disabilities.
3. Stay out of damaged buildings.
4. Use the telephone only for emergency calls.

### Response Procedure for Emergency Team

1. Formulate an Emergency Response Team for earthquake response.
2. Using the public address system, inform residents of response procedures discussed above.
3. Inform the necessary authorities for aid.
4. Ensure no residents are stuck beneath any debris, in case of a structural failure.
5. Ensure that all residents standing outside near the buildings are taken to open areas.
6. Ensure that the first aid ambulance and fire tender vehicles are summoned if necessary.
7. Inform the nearby hospitals if there are any injuries.
8. Check the utilities and storage tanks for any damage.

## 4.0 RESPONSE FOR LPG LEAKAGE

1. The affected area should be evacuated and cordoned off immediately.
2. Initiate an emergency response team for LPG leakage.
3. Ensure that only concerned personnel are present in the affected area and all other personal and visitors are moved to the nearest assembly points.
4. Rescue trapped personnel, also check if any personnel are unconscious in the area and immediately move them outside and provide first aid. Ambulance should be summoned to take injured personnel to the nearest hospital.
5. Personnel in the nearby buildings to close all doors and windows to prevent entry of the leaked gas.
6. Source of leakage to be traced and isolated from all the other areas. And if required use pedestal fans to bring down the gas concentration.
7. In case of a fire follow the instruction in case of fire.

## 5.0 RESPONSE IN CASE OF FIRE

1. Required response during in the event of a fire should be described in signs located in the lobby.
2. Inform the Fire department.
3. If the fire is small, engage in extinguishing the fire using the nearest fire extinguisher.

4. The emergency response team will provide immediate relief to the injured residents at the scene of incident. Any injured persons should be evacuated on priority to the dispensary or one of the nearest hospitals based on their conditions.

## 6.0 Instructions for the Occupants-

1. Get out of buildings as quickly and as safely as possible.
2. Use the stairs to escape. When evacuating, stay low to the ground.
3. If possible, cover mouth with a cloth to avoid inhaling smoke and gases.
4. Close doors in each room after escaping to delay the spread of the fire.
5. If smoke is pouring in around the bottom of the door or if it feels hot, keep the door closed.
6. Open a window to escape or for fresh air while awaiting rescue.
7. If there is no smoke at the bottom or top and the door is not hot, then open the door slowly.
8. If there is too much smoke or fire in the hall, slam the door shut.
9. Stay out of damaged buildings.
10. Check that all wiring and utilities are safe.

## 7.0 FIRE FIGHTING FACILITIES ;

In the proposed "Universal Royal Residency" Residential Building Project following considerations have been taken for Fire Fighting arrangements ;

i. Hydrant & Sprinkler system will be common.

ii. Sprinkler system will fed from the Hydrant riser and being the residential complex, sprinkler system will be restricted only in the basement and parking areas.

iii. Single Jockey pump will be used to maintain the pressure on hydrant system.

iv. Electrically operated hydrant pump to be used under the DG Supply only and not under the grid supply.

v. Electrical load for jockey pump only to be considered under the grid supply.

vi. Another diesel operated pump of same capacity to be kept as stand by.

Recommendation by the State Fire Office will be followed during the operational phase of the project. The following provisions will be made for combating fire hazards ;

a. Underground Fire Water Tank & Pump Room
b. Hydrant System & Wet Riser Piping
c. Automatic Smoke Detectors
d. Automatic Sprinkler System
e. Fire Alarm System
f. Portable $CO_2$ Fire Extinguishers.

Moreover, Emergency Evacuation Plan will be displayed at all strategic locations within the proposed Residential Building Premises.

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