Risk Assessment and Management Plan for Handling Emergencies

The overall aim of Hazard Identification and Risk Assessment (HIRA) is to identify the potential hazards associated with the activity and assessment of the impacts of all probable accidental hazards to facilitate the decision making process for mitigating measures to reduce hazards As Low As Reasonably Practicable. HIRA requires involvement of various steps as follows:

(a) Hazard Identification : To identify potential sources this can pose hazard to process, equipment and personnel.

(b) Likelihood : Analysis of probability of the occurrence of hazard which may lead to an incident and ultimately to an accident

(c) Legislation : Applicability of Activity/ Process/ Operation vis-à-vis Regulatory Act/ Rule and status of compliance thereof

(d) Control : Control measures envisaged to
  • Prevent Risk
  • Control Risk
  • Minimize/ Reduce the risk to acceptable level
  • Transfer risk

(e) Severity : Magnitude of the impact of hazard on process, activity, operation, environment and personnel.

<table>
<thead>
<tr>
<th>Hazard Identification</th>
<th>Development of Industrial Estate involves the area development, infrastructural development, landscaping, and provision of CETP. Hence, no significant hazard is envisaged from the proposed activities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood</td>
<td>The frequency of hazard is envisaged to be extremely low as the activities does not envisage the use of any hazardous material</td>
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<tr>
<td>Control</td>
<td>Inspite of the low frequency &amp; low severity of the hazard and risk to be envisaged, the project proponent will take adequate steps to control emergencies.</td>
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<tr>
<td>Severity</td>
<td>Frequency and severity of the risk &amp; hazard is anticipated to be low.</td>
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</tbody>
</table>

Management Plan for Handling Emergencies

An important element of mitigation is the emergency planning i.e. recognizing that accidents are possible, assessing the consequences of such accidents and deciding on the emergency procedure both onsite and offsite, which are to be implemented in the event of an emergency. Emergency planning is just one aspect of safety and can not be considered in isolation. In
particular, it is not a substitute for maintaining good standards within plant operations. Before starting to prepare the plan, plant management should ensure that the necessary standards and safety precautions are in place. Hence, the overall objectives of a Disaster Management Plan would be

♦ To localize the emergency and if possible, eliminate it.
♦ To minimize the effects of the accident on people and property.

(a) Fire Fighting Measures

In order to ensure effectiveness in management of fire hazard, following instructions could be envisaged by housing societies, project proponent and other stakeholders.

♦ Inform fire brigade in the event of major fire.
♦ Evacuate area and fight fire from a safe distance or protected location.
♦ Approach fire from upwind to avoid toxic decomposition products.
♦ Stop leak before attempting to stop the fire. If the leak cannot be stopped, and if there is no risk to the surrounding area, let the fire burn itself out.
♦ If the flames are extinguished without stopping the leak, vapors could form explosive mixtures with air and re-ignite.

♦ Water can extinguish the fire if used under favorable conditions and when hose streams are applied by experienced firefighters trained in fighting all types of flammable liquid fires.
♦ If possible, isolate materials not yet involved in the fire, and move these from fire area if this can be done without risk, and protect personnel.
♦ Fire-exposed material should be cooled by application of hose streams and this should begin as soon as possible (within the first several minutes).
♦ Water sprinklers can be used to dilute spills to nonflammable mixtures and flush spills away from ignition sources.
♦ Do not enter in the area of fire without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective equipment (Bunker Gear) may not provide adequate protection. Chemical resistant clothing (e.g. chemical splash suit) and positive pressure self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) may be necessary.

(b) Emergency Plan

Project proponent is suggested to envisage the Onsite Emergency Plan for the proposed IMT at Faridabad, to maintain the Environmental Health & Safety, to the best conditions with following salient features:

♦ Designation & responsibility for contingency management as well as emergency response system to be made known to each industry in the IMT and their employees.
♦ Standard operating procedure for handling for specific accident and emergency to be circulated among industries and individual industry will also make their on SOP in this regard.
♦ Effective co-ordination should be made with the outside agencies, such as fire Brigade, Civil, Defence Hospitals etc.
♦ Every person directly or indirectly to be involved with the proposed industrial estate should be made known about the safety procedures.
♦ Safety Checklist should be made by individual industries of various emergencies and safety of equipment, to ensure effectiveness of the system in place.
♦ Full utilization of available resources, internal as well as external should be ensured for handling emergencies.
♦ A multi-disciplinary team should be formed to handle emergencies. Adequate protective equipment should be kept in the unit.
♦ Communication meeting dealing with safety would be held regularly among member industries.

(c) Emergency Organization

Project Proponent is suggested to set up Emergency Organization for management of disaster, if any occurred, during the operational phase of the proposed project. There will be the Crisis Coordinators from the members industries. A Chief Coordinator will ensure the functioning of organization structure during emergency. The Chief Coordinator will organize a team responsible for controlling the incidence with the personnel under his control. Emergency Coordinators would be appointed who would undertake the responsibilities like fire fighting, rescue, rehabilitation, transport and provide essential support services. For these purposes, Security In-charge, Personnel Department, Essential services personnel would be engaged.

(d) Emergency Communication

Communication is a significant factor in handling an emergency. Communication includes physical and administrative means by which information with respect to emergency can be rapidly disseminated for off site emergency response. These also include emergency response actions, which must be taken to protect health and safety of the personnel and the public. Without adequate communication, successful emergency planning cannot be exercised.

(e) On-site Plan

The on-site protective actions include.
♦ Notification of emergency to all the personnel within the industrial estate by siren or alarm or public address system
♦ Notification for evacuation of personnel by based on the extent of emergency.
♦ Examination of evacuees for injuries and / or exposure to hazardous material.
♦ Search and rescue operations for missing persons.

(f) Off-site Areas

In the event of a significant emergency condition potentially affecting off-site population, off-site authorities should be immediately notified in accordance with the emergency response procedures. Prompt off-site notification is essential for mitigating the emergency condition and minimization of any impact on personnel off-site, particularly in case of an emergency occurring along the pipeline corridor outside the pumping station.
Organizational hierarchy for management of Environment

Major objectives are (i) Creation of a Environment Management Team under the leadership of Sr. Manager IA (ii) Reporting to Chief Engineer/General Manager on Monthly Basis (iii) Regular monitoring of Air, Water, Noise, Effluents, Solid Waste for compliance from HSPCB.

Environmental Management Plan (EMP) Benefits

Environmental Management Plan would help Project Proponent

♦ In prioritizing area as well as setting targets to address various environmental issues to achieve sustainable development in the area.

♦ In developing “operating procedures /systems”, which would lead to quicker dissemination of ‘best practices’ and identification of ‘corrective actions’ needs to be envisaged to meet environmental objectives and targets.

Project Benefits

The project aims at development of Industrial Model Township at Faridabad, which would help in creation state-of-the-art industrial infrastructure in the district. The proposed project will facilitate in creation of employment opportunities both direct and indirect for local population. The project will help in the urban development by creating residential housing, providing all essential amenities in the IMT and hence the project will have immense benefit for social upliftment. The project also aims at development of better landscaping in the vicinity as well as creation of green belt in the area which would eventually helps in the improvement of visual and aesthetic quality of the area. With the implementation of the project, other utilities would also be created like development of road network, sewerage network, augmentation of water supply system & wastewater treatment, solidwaste collection facility, educational and health facilities etc. In nutshell, project aims at amelioration of the socio-economy of the areas as well as providing basic amenities to people.