1.1 RISK ANALYSIS AND PREVENTIVE/CORRECTIVE MEASURES

1.1.1 Risk Analysis

Risk Assessment is all about prevention of accidents and to take necessary steps to prevent it from happening. The possible risks in the case of limestone mining project following natural/industrial problems which may be countered during the mining operation are given below:

- Accident due to movement of vehicles
- Occupational injuries

Keeping the above points of risk accidents, safety of the mine and employees will be taken care of by the mining rules & regulations, which are well defined with laid down procedure for safety.

1.2 PREVENTIVE/CORRECTIVE MEASURES

1.2.1 Preventive and Corrective Measures for Accidents Due To Trucks & Dumpers

- All transportation within mine lease should be carried out directly under the supervision and control of the management.
- The vehicles condition will be checked thoroughly at least once in a month by the competent person authorized for the purpose by the management.
- Road signs will be provided at each and every turning point up to the main road.
- A statutory provision of the demarcation, constant education, training etc. will go along way in reducing the incidents of such accidents.

1.2.2 Preventive and Corrective Measures for Occupational Injuries

- To avoid any adverse effect on the health of the workers due to dust, noise etc. extensive measures has to be adapted related to safety aspect.
- Regular maintenance and testing all the tools & equipments as per manufacturer’s guidelines.
- Provision of personal protective equipment to the workers working in the mine.
- Periodical Medical Examination of all workers by medical specialists will be conducted.
- Awareness program will be organized for workers.
- Training will be given to the workers on how to use hand equipments.
- First aid will be provided on-site only if any accident occurs.
- In-case of poor condition of any equipment, it will be changed immediately.

1.2.3 Preventive and Corrective Measures for Fires on large surface vehicles through ignition of fuel/hydraulic fluids

- Availability of fire extinguishers on-site throughout the operational phase of mine.
- Maintenance of vehicles on monthly basis.

1.3 DISASTER MANAGEMENT PLAN

The objective of onsite disaster management plan for the captive mine is to be a state of perceptual readiness through training, development to immediately control and arrest any emergency situation so as to avert a full fledged disaster and the consequence of human and property damage and in the event of a disaster still occurring, to manage the same so that the risk of the damage consequences to life and property is minimized.
M/s Tamilnadu Cement Corporation Limited has formulated a disaster management plan for Emergency Preparedness & Responses.

The salient features are elaborated as below.

- Emergency response Organization
- Communication System
- Action on the site
- Facilities available at site.

**Emergency Response organization**

Following officers of the mines will be responsible for co ordination in case of emergency situated in any section of the mine.

<table>
<thead>
<tr>
<th>Person</th>
<th>Name</th>
<th>Contact No.</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of the department</td>
<td>Mr.K.Senthil Kumar</td>
<td>9943844086</td>
<td>Site Controller</td>
</tr>
<tr>
<td>Section In charge</td>
<td>Mr.T. SanthaKumar</td>
<td>9047872442</td>
<td>Accident Controller / Communication officer</td>
</tr>
<tr>
<td>Employee who gives the first information about the accident/ Shift in charge</td>
<td>Mr.K.SenthilKumar</td>
<td>9943844086</td>
<td>Primary Controller</td>
</tr>
<tr>
<td>P &amp; A Dept. (HOD)</td>
<td>Mr.Balachandar</td>
<td>8056902430</td>
<td>Liaison officer</td>
</tr>
</tbody>
</table>

**1.3.1 Key Personnel and their responsibility:**

**1.3.1.1 Site Controller**

The head of the department have overall responsibility for controlling the incident/accident and directing the personnel.

- To prepare full proof plan for control of accident like, landslides, subsidence flood and other natural calamities
- To inform statutory bodies of the State and central Government
- To inform communication officer about the emergency, control centre and assembly point.
- To provide all assistance and call for Fire Squad, Security Officer and other services required for removing/control of danger.
- To ensure that all necessary personnel to be assemble at assembly point.

**1.3.1.2 Accident Controller/Section In charge**

- Mock rehearsal of plan prepared for accident.
- To withdraw men/machines from the affected area with priority for safety of personnel, minimize damage to the machines, environment and loss of material.
- To act as accident controller to all the later arrived.
- To make a report based on the facts and figure and submit to the Site Controller

**1.3.1.3 Primary Controller/ Shift in charge**

- To inform the Accident Controller / shift in charge from the nearest means of communication about the location and the nature of accident
- To assist in clearing any obstruction in relief of accident.
- To carry out all instructions of accident controller.
1.3.1.4 Capability of Lessee: Following facilities are available at Mines.

- Public addressing system
- Telephones/Mobile handsets
- Runners/messenger
- Emergency alarm
- Firefighting equipment & accessories with trained manpower
- Full fledged dispensary
- Training centre
- Fire tender, Ambulance

1.3.1.5 Facilities available outside

Government Hospital at Ariyalur, Kadugur & Sendurai are available.

As per Risk Assessment studies, the possibility of "Offsite" emergency situation are ruled out as proposed mine is not likely to pose any offsite emergency and hence does not call for any preparation of an off-site emergency plan.

Further the residential quarters and living area are far from the mine. However, considering extreme situation, District authority including police would be informed about any offsite emergency if situation arises.

Care and maintenance during temporary discontinuance: An the situation of temporary discontinuance due to court order or due to statutory requirements or any other unforeseen circumstances may indicate measures of care, maintenance and monitoring of status of discontinued mining operations expected to re-open in near future.

When the mine is temporarily discontinuance due to any unforeseen circumstances the following care and maintenance shall be carried out:

- Notice to be served to the all concerned authority rule.
- Warning shall be displayed on "Notice Board" at appropriate places
- Security personnel shall be posted at every danger point.
- No unauthorized person shall be allowed to enter into the mine without prior permission of the management.
- All men and machinery shall be withdrawn from the mine and shall be kept in a compact and safe place.
- All safety precautions shall be taken care off as per rule.

1.4 Natural Resource Conservation

The plan of action for conservation of natural resources and recycle of waste materials has been formulated and given as below:

- Ground water or surface water will not be abstracted as water requirement will be met by tanker supply
- Plantation programme have been proposed along the village roads/tracks.
- All the machineries and equipments shall be properly maintained so as to reduce the green house gas emissions and to conserve the fuel & energy
1.5 REHABILITATION & RESETTLEMENT

The existing mine lease area is designated as ownpatta land and Government waste land and has no human settlements and hence, no R & R is envisaged. However Social development of village will be considered as per social activities. Provision and maintenance of protective works like drains, parapet walls, retaining walls, check dams, Management of Air and water quality, Management of Waste, top soil, infrastructure and mining machinery disposal, Safety and security. The resources required for management of these operations will be supervision, raw materials (mainly stone available at mines), gates, fencing, transport and Communication. All the above operations will be carried out in three months time.