8.4 Disaster Management and Risk assessment:

A major emergency in a mine is one which has potential to cause serious injury or loss of life and cause damage to activities resulting in disruption to normal activities. The emergency may be caused due to human failure, breakdown of machinery or natural cause.

The disaster management plan prevents accidents, by systematic planning, operation, maintenance of machinery and training of personnel. Since absolute safety is not achievable the essential part of hazard control is to be aimed at mitigating the effects of all accident.

The measures include recognizing the possibilities of accidents, assessing consequences, decide on steps to be implemented in case of emergency. The emergency plan both offsite and onsite to be consistent with each other. The objectives of emergency plan include:

- To localize emergency and eliminate hazards
- To minimize the effects on people and property
- Elimination of hazards by local / supervisory personnel and minimising effects includes rendering first aid, evacuation, hospitalisation, rehabilitation.
- To seek help from outside sources if required.
- Notice / information to authorities.

It is a hard rock area and as such no serious disaster is foreseen. However accidents cannot be ruled out in the mine. Following risks are anticipated;

- Failure of benches.
- Fall of machinery / person from benches.
- Failure of transport machinery.
- Heavy rainfall resulting in inundation of mine
- Accidents due to blasting / explosives
- Accidents due to fire
- From H T Electric line through the area.

The Onsite Emergency Plan is already in place for adjoining Bhavnagar Limestone Mine and cement plant of the lessee and will be followed strictly in case of any emergency. If required, help will be sought from district authorities and DGMS.

Besides Normal Emergency three risks are identified,

1. High Tension Electric Line
2. Inundation due to water
3. Fire

Standard operating procedure shall be made and enforced in case of emergency. To overcome this for provisions of Reg. 119 of M.M.R. 1961 shall apply.

1.(i) For High Tension Electric Line a safety barrier of 45m on either side of High Tension Line shall be left in the open pit working area.

(ii) If there is danger of falling of live wire during working then no machinery shall be allowed to remain or pass through the safety barrier.

(iii) A notice board shall be installed showing the position of danger in the area.

(iv) RSEB shall be informed of the mishap if occurred or anticipated of fall of electric tower or live wire.

2. The diversion of Nallah shall be made after getting permission from Competent Authority of State Government

(i) For risk of inundation due to surface water is the open pit, provisions of M.M.R. 1961 reg. 127 shall apply.

(ii) The working in bench form shall be made on a sloping ground and bottom most bench shall be provided with a sump to collect water which will be directly pumped out to surface.

(iii) Floor control room shall be established in case of danger of inundation. H.F.L. shall be marked in the area on a pillar. If water level reaches 0.5m below HFL mark then all men and machinery shall be withdrawn from the pit and work shall be stopped until water recedes to a safe level.

(iv) In rainy season when there is danger of inrush of water in the pit, mining work shall be carried out on upper level benches only.

3. In case of short circuit of electric line and fire caused due to this misha sand bucket and fire extinguishers shall be provided and maintained.

8.5 Care and Maintenance during temporary discontinuance:

In case of any temporary discontinuance due to court order or due to statutor requirement or any other unforeseen circumstance following measures for car and maintenance and monitoring of status shall be taken.

- Notice of temporary discontinuance of work in mine shall be given t the Controller General, Controller of Mines and the Regional Controller o Mines, IBM, DGMS & DMG, State Govt. officials under Rule 24 of MCDI 1988 and Reg. 6 of MMR 1961 respectively.
- All the mining machinery shall be shifted to a safe place.
- Entrance to the mines or part of the mines to be discontinued shall be fenced off as per DGMS Circular and security Guards shall be posted for the safety and, to restrict any unauthorized entry to the area.
  Competent persons shall inspect the area regularly.
- Air, water and other environmental monitoring shall be carried out.
- Care and upkeep of plantation done shall be carried out on regular basis.
- Measures of care, maintenance and monitoring of status of unplanned, discontinued mining operations expected to re-open in future.
- All rules and regulations shall be followed in case of any temporary discontinuance of mine.

No temporary discontinuance is anticipated during this Progressive Mine Closure Plan period.