





**COMPLIANCE OF CONDITIONS LAID DOWN BY MoEF IN NOC GRANTED FOR THE  
EXPANSION OF KASHLOG LIMESTONE MINES OF AMBUJA CEMENTS LIMITED**

Sr. No.	STIPULATION	ACTION
<b>2A. Specific Conditions</b>		
(i)	All the conditions stipulated by the State Pollution Control Board in their Consent should be effectively implemented.	Implemented.
(ii)	The project proponent shall obtain prior approval of the Chief Wildlife Warden before enhancing the production from the mine.	Necessary permission / No Objection Certificate for increase in the rate of limestone extraction from the existing Mining Lease area located in parts of village(s) Kashlog, Mangu, Pati Chola, Gyana, Rauri and Sangoi has been obtained.
(iii)	The project proponent shall obtain requisite forestry clearance for diversion of entire forestland involved in the project from the competent authority prior to start of enhanced production from the mine. No mining work shall be carried out in the forest area for which forestry clearance has not been obtained.	Required Forestry clearance for diversion of forestland has been obtained.
(iv)	The project proponent should prepare a comprehensive plan to combat environmental degradation including landslide keeping in view the location of mine in seismically active zone IV and landslide prone zone. The proponent should identify critically degraded areas in terms of hectares and prepare the area maps along with time bound action plan for their improvement including details of protective structures using perennial soil binding native grass species, shrubs and tree species and earmark separate budgetary provision for this activity. Details in this regard shall be submitted to this Ministry and its Regional Office located at Chandigarh within 3 months.	A comprehensive plan to combat environmental degradation has been made and submitted vide our office letter No. ACH/EMD/F-13/01-70 dated 31 <sup>st</sup> January 2007.
(v)	The environmental clearance is subject to approval of the State Landuse Department, Government of Himachal Pradesh for diversion of agricultural land for non-agricultural use.	Noted
(vi)	The mining operations shall not intersect groundwater table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.	Mining does not intersect ground water.

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(vii)	<p>Topsoil should be stacked separately at earmarked sites and should not be kept active for long period. It should be used for reclamation and rehabilitation of the mined out areas.</p>	<p>Availability of Topsoil is very less in quantity. However, this quantity of Top soil is being used for plantation.</p>  <p align="center"><b>Top soil stacked separately for reclamation and rehabilitation</b></p>
(viii)	<p>Catch drains and siltation ponds of appropriate size should be constructed for the working pit, and soil dump to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after monsoon and maintained properly.</p> <p>Garland drain (size, gradient and length) shall be constructed for mine pit and soil dumps and sump capacity should be designed keeping 50 % safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.</p>	<p>Necessary care shall be taken during mining operation. 51 check dams, 3 check filters have already been provided surrounding to mines area for water quality management. Except these retaining walls and Surface drains etc. are also constructed.</p>  <p align="center"><b>Check Dam/Check Walls</b></p> <p>To harvest rainwater for ground water recharging two rainwater harvesting pond of capacity 1500 m<sup>3</sup> &amp; 56000m<sup>3</sup> is constructed in Mines.</p>  <p align="center"><b>A Rainwater harvesting pond at mines.</b></p>
(ix)	<p>Dimension of the retaining wall at the OB benches within the mine to check run-off</p>	<p>Not Applicable. No Over Burden shall be generated.</p>

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	and siltation should be based on the rainfall data.	
(x)	Plantation shall be raised in an area of 239.06 ha including a green belt around ML area, roads etc. by planting the native species in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2000 plants per ha.	<p><b>Plantation is being raised by planting the native species in consultation with the local DFO / Agriculture Department.</b></p>  <p align="center"><b>Plantation in Mines</b></p>
(xi)	Regular monitoring of the flow rate of the springs and perennial nallah will be carried out and records maintained.	Regular monitoring is being carried out and records are maintained. Water quality monitoring reports are enclosed as <b>table 6</b> .
(xii)	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, CGWB. The frequency of monitoring should be four times a year, pre-monsoon (April / May), monsoon (August), post-monsoon (November), and winter (January). Data thus collected should be sent at regular intervals to MoEF, CGWA and Regional Director, CGWB.	<p>Due to open cast mining, we are not using the ground water, so there is no requirement for this monitoring in our case.</p> <p>Further ground water quality monitoring is being carried out by third party (NABL accredited lab) and report is enclosed as <b>annexure 3</b>.</p>
(xiii)	Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB	<p>Noted.</p> <p>To harvest rainwater for ground water recharging two rainwater harvesting pond of capacity 1500m<sup>3</sup> &amp; 56000 m<sup>3</sup> is constructed in Mines.</p>
(xiv)	Only wet drilling shall be adopted. Drills should either be operated with dust extractors or equipped with water injection system.	Being complied.
(xv)	Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibration and to arrest fly rocks and	<p><b>(a). Blasting operation is being carried out in daytime only.</b></p> <p><b>(b). We use IKON digital energy control system to blast in critical areas. This is system is more</b></p>

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	boulders should be implemented.	<p>precise and accurate and generates less ground vibrations, fly rock and give better fragmentation.</p> <p>Advanced controlled blasting technique is practiced such as use of NTD, Excel, muffled blasting, optimum quantity of blasting material are practiced to avoid dust generation, fly rock, noise level and ground vibration because of the activity.</p> <p>Secondary blasting is avoided by use of hydraulic breaker.</p>  <p align="center"><b>Hydraulic Breaker</b></p>
(xvi)	Minerals handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Minerals handling plant are being provided with bag filters. Bag filters are attached at all the transfer points to arrest the dust. The dust so collected is automatically recycled in the process.
(xvii)	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	We are carrying out regular maintenance of Heavy Earth Moving Machinery used in mining operation to keep vehicular emission under control.
(xviii)	The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna such as leopard, wild dog etc. reported in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in conservation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be	We have requested Divisional Forest Officer (Wildlife), Shimla Division to get the action plan prepared as it would enable us to make the requisite allocation of funds in the project cost estimates. A copy of the letter has also been submitted to MoEF, Chandigarh vide our office letter No. ACH/EMD/F-13/01-07 dated 31 <sup>st</sup> January 2007.

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	submitted to the Ministry and its Regional Office within 3 months.	
(xix)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land and pattern and report submitted to MoEF and its regional office.	Digital processing of the lease area has been carried out and report has been submitted to MoEF's regional office Chandigarh vide our office letter no. ACH/EMD/F-20/06/10.
(xx)	Land oustees should be rehabilitated as per the Resettlement and Rehabilitation plan approved by the Government of Himachal Pradesh.	Land oustees are being rehabilitated as per the Resettlement and Rehabilitation plan approved by the Government of Himachal Pradesh.
(xxi)	Consent to operate should be obtained from SPCB before starting enhanced production from the mine.	Consent to operate has been granted by HPSPCB.
(xxii)	Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and mineral separation plant wastewater.	Sewage treatment plant has been provided for colony. Settling tank and Oil & Grease Trap has been provided for workshop.
(xxiii)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forest 5 Years in advance of final mine closure for approval.	The point has been noted and shall be taken care well within time.

**B. General conditions**

(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	If there is any change in mining technology and scope of working, prior approval shall be taken from Ministry of Environment and Forests.
(ii)	No change in the calendar plan including excavation, quantum of mineral limestone and waste if any should be made.	Shall be taken care of.
(iii)	Four ambient air quality - monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO <sub>2</sub> , NO <sub>x</sub> monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be under taken in consultation with the State Pollution Control Board.	Ambient air quality is being carried out at four locations & reports of the same are being submitted to HPSPCB. Reports are enclosed as <a href="#">table 7</a> .
(iv)	Data on ambient air quality (RPM, SPM, SO <sub>2</sub> , NO <sub>x</sub> ) should be regularly submitted to the Ministry including its Regional office located at Chandigarh and the State	Data are regularly being submitted to HPSPCB, CPCB and MoEF Chandigarh on regular basis.

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	Pollution Control Board / Central Pollution Control Board.	
(v)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	<p><b>To control the fugitive dust emission from various sources we have installed the bag filters. Restricted speed limits for the vehicles inside plant &amp; mines also help to reduce the fugitive dust emission. Water spraying arrangement on haul roads, loading and unloading and at transfer points have been provided and properly maintained.</b></p>  <p><b>Water Sprinkling on Haul Roads</b></p>
(vi)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc should be provided with ear plugs / muffs.	All the precautionary measures have been taken to keep the noise levels within limits. The noise level inside the cabin of HEMM is very low however the workers engaged in operations of HEMM are provided with ear plugs/ muffs.
(vii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Settling tank and Oil & Grease Trap has been provided. HPSPCB analysis report is enclosed <b>as annexure 4.</b>
(viii)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects	Company is very much conscious about the occupational health and safety of employees and workers. Different types of health and house keeping programmes are regularly

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	Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	being organized by the company and the records are maintained. All the workers and employees are trained about the use of Personal Protective Equipments. Being a conscious company about the safety of employees the company has its own five cardinal rules for safety which each and everyone has to be followed.
(ix)	A separate environment management cell with suitable qualified personnel should be set up under the control of a senior executive, who will directly report to the Head of the Organisation.	(a) A separate Environmental Management Division has already been set up to look after environment related activities. (b). Monthly EMS awareness program & other regular eco-green activities are being carried out as per our scheduled targets.
(x)	The project authorities should inform to the Regional Office located at Chandigarh regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	The production has been started from 27 <sup>th</sup> March 2010.
(xi)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Chandigarh.	Year wise expenditure will be reported to the Ministry and its Regional Office located at Chandigarh.
(xii)	The Regional Office located at Chandigarh shall monitor compliance of stipulated conditions. The project authorities should extend full co-operation to the officer (s) of Regional Office by furnishing the requisite data / information / monitoring reports.	Officer(s) of Regional Office is always fully co-operated.
(xiii)	A Copy of clearance letter will be marked to concerned panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	A Copy of clearance letter has been marked to concerned panchayat.
(xiv)	State Pollution Control Board should display a copy of clearance letter at the Regional Office, District Industry Centre and Collector's Office / Tehsildar's office	-

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	for 30 days.	
(xv)	The project authorities should advertise at least in two local newspapers widely circulated, one of which should be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> and a copy of the same should be forwarded to the Regional Office of this ministry located at Chandigarh.	Advertisement has been made in two local local news papers, a copy of which has already been submitted to MoEF, Chandigarh.



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EMD- Team, ACL Darlaghat