

# Ambuja Cement

Ref. ACH/EMD/F-13/05/2020

Dated: 25/05/2020

Dr. Bhardwaj Adiraju  
Ministry of Environment, Forest and Climate Change,  
Regional Office (NCZ), 25, Subhash Road, Dehradun  
Dehradun - 248001.

**Sub.:** Implementation of Environmental safeguards about Ambuja Cements Ltd.,  
Darlaghat (H.P.) w.r.t. Half yearly Compliance Report of Environmental  
Clearance.

**Ref.:** Environmental Clearance Order No. J-20012/24/88-IA-II dated 12/02/1992  
and J- 11011/792/2007-IA II (I) dated 29/02/2008.

Dear Sir,

We are pleased to submit herewith half yearly compliance status report (i.e. for  
the period of October – 2019 – March - 2020) with supporting relevant/ready  
reference photographs, annexure and tables of Environmental Clearance Order  
No. J-20012/24/88-IA-II dated 12/02/1992 and J-11011/792/2007-IA II (I) dated  
29/02/2008 to your kind good self in a systematic context, please.

Thanking you,

Yours Faithfully,  
For **Ambuja Cements Ltd.-Unit Suli**



**(Sandeep Bhimta)**  
**DGM - EMD**

Copy to:

- 1) Regional Officer, HP State Pollution Control Board, Parwanoo ,Dist. Solan,  
HP
- 2) Regional CPCB, Lucknow, UP.

Encl.: (i) As above.  
(ii) Soft copy through mail.

**AMBUJA CEMENTS LIMITED**  
(UNIT SULI)

P. O. Darlaghat, Tehsil Arki, Distt. Solan - 171 102 (H.P.) Phone: 01796-246468, 246283 Fax: 248335, 248316  
Website : [www.ambujacement.com](http://www.ambujacement.com)  
(Regd. Off. : P. O. Ambuja Nagar, Taluka - Kodinar, Distt. Junagarh. Gujarat - 362 715)

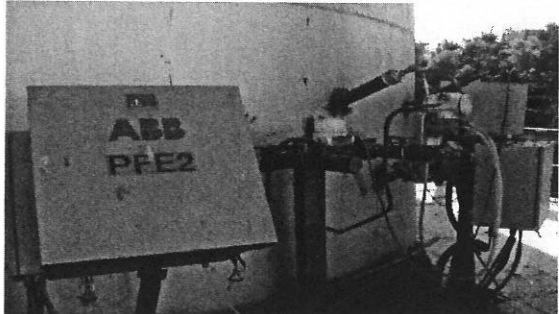
**COMPLIANCE OF RECOMMENDATIONS BY THE MoEF FOR EXISTING CEMENT  
PLANT AT DARLAGHAT AND RELATED MINING ACTIVITIES- October 2019 – March 2020**

Sr.	STIPULATION	IMPLEMENTATIONS
2.I	All the recommendation as made in the report of the Committee of Experts, as mentioned in para 12.0 to 12.4 (Page-33-41 of the Expert Committee Report) should be implemented.	Compliance statement attached as Annexure I.
2.II	The State Government has earmarked an area of 1400 square kms in Kibbar, Lahul and Spiti District, for declaring it as a Wildlife Sanctuary. Necessary notification for this proposed wildlife sanctuary should be issued within a period of six months.	HP State Government has notified for Kibber Wildlife Sanctuary vide Notification No. FFE-B-F(6)-29/99 dated 1.11.99
2.III	An area of 20 square kms. should be added to the existing Majathal sanctuary (situated close to the mining area of the company) and necessary notification should be made in this regard within a period of six months.	Forest Department Notification Shimla-2, dated 11 <sup>th</sup> March, 2002 No.-B-F(6)23/99 – Whereas the Governor of Himachal Pradesh after due consideration of the view that areas mention in the schedule were of adequate ecological, faunal, floral, geo-morphological, natural and zoological significance. Therefore, in exercise of powers vested to him under section 18(1) of Wild Life (Protection) Act, 1972, the Governor, Himachal Pradesh declared his intention to constitute the area comprising of 17.55 sq. km. (related to Survey of India, survey sheet No. 53A/15/SE on scale 1:50000) as extension to the Existing Majathal Wildlife Sanctuary notified vide Notification No. FFE-B-F (6)23/99 dated 23-10-1999.
2.IV	An inter-disciplinary committee to monitor and over-see the implementations of the recommendations of the Experts Committee should be constituted by the State Government. This monitoring Committee should consist of experts drawn from various disciplines such as forestry, environment, mining, irrigation and health etc. A representative of the	A committee has been formed by HP State government that meets to monitor the recommendations by Expert Committee.

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	Ministry of Environment and Forests, Government of India should also be associated with the Committee.	
2.V	The particulate emission from the various stacks should conform to the stipulated standards of 150 milligram per cubic meter. Necessary pollution control equipment such as ESP/Bag filters should be installed.	The particulate emission is controlled through 52 nos. of B/F(s)/ 3 ESP(s) and 1 Glass Bag House in the process. The emission from different stacks maintained below the prescribed limit.  <b>Please refer Table I</b>
2.VI	Fugitive emissions should be controlled to avoid any nuisance problems outside the plant. A green belt of adequate width and density should be provided all around the cement plant, as also in the mining areas.	Plantation all along the ML area is in progress. Plantation is in progress all along the plant boundary and colony, wherever the space is available.  <b>Please refer Table - 3 for plantation.</b>
2.VII	Affected families should properly be rehabilitated in consultation with the State Government.	No family has been displaced at plant site. However, in the mining area, village Chakhru (Lying within safety zone) is rehabilitated at the cost of company by means of providing land and constructing houses over there.
2.VIII	Adequate number of monitoring stations should be provided (not less than 4) in consultation with the State Government for monitoring of ambient levels of particulates in the plant and mining area and data recorded. The information on stack emissions of particulate and fugitive emissions including the data of ambient air quality in the area should be furnished once in three months to the State Pollution Control Board and once in six months to the Ministry of Environment and Forests, Government of India.	a.) Seven ambient air quality monitoring stations namely Khata, Mines Dormitory, Rathoh, Mangoo, Chandi, Pacheur, and Batedh are fixed within the aerial distance of 5 kms. from plant and mines and are monitored twice in week. <b>Pl. refer Table – 4.</b>  b.) A mobile monitoring van is also in use to check Ambient Air Quality randomly within 5 kms. Radius of plant and mines. <b>Pl. refer Table – 7.</b>  c.) A well equipped laboratory has also been established for analysis.  d.) All the monitored values of Environmental Parameters as stipulated are reported to HP SPCB on monthly basis and Half yearly to MoEF (NR).
2.IX	A baseline health survey specially for pulmonary functions should be done in	a.) A baseline health survey was conducted with particular reference to Pulmonary function for surrounding villagers of plant

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	the adjoining region of plant and mining areas and this should be followed up by periodic tests after the commissioning of the cement plant and the mining areas in order to monitor the impact of any on the health of the local inhabitants.	and mines and report submitted to MoEF and HP SPCB in 1995. b.) A follow up survey for the same was conducted in July 2000, which found no deviation in the health status of the examinees. c.) In addition to this, a health status survey was conducted for the bovines and caprines of this area and the same was submitted to MoEF and HP SPCB in 1996.
2.X	Adequate measures for the control of noise should be taken so as to keep the noise levels below 85 dB in the working environment.	a.) The noise level in side factory area is varying between 62dB to 85 dB in different places. However, noise level in the colony area varies in between 40 to 55 dB.  b.) Special attention has been given to machinery selection, erection and maintenance.  c.) In-House mechanical improvement is under continuous process to reduce the noise level further.  <b>Please refer Table - V</b>
3.	The conditions stipulated may be varied or new conditions may be added or the clearance revoked, if necessary in the interest of environmental protection and if there is any change in the project profile, non-satisfactory implementation of the stipulated conditions etc.	a.) Additional stipulation was put by HPSPCB to install a continuous monitoring system for GBH emission in their letter for final consent to Operate for Plant in October, 1995 and the same was installed and operational since December, 1996. Due to some technical problems this equipment was replaced with a new emission monitor EM 919 from Baltec Systems. We have also replaced this system with new emission monitor i.e. (ABB) Durag DR 290.  b.) Online stack emission monitoring equipments have been installed at Clinker Cooler ESP, Cement Mill ESP 1 & 2, Coal Mill Bag Filter and Cement Mill-3 Bag Filter sections.  

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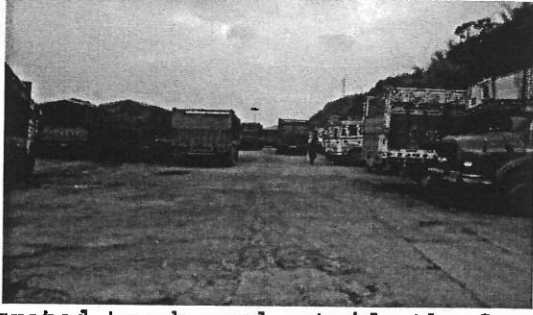

		CEM at GBH stack
4.	The stipulations will be implemented, among others, under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991.	All the applicable stipulations are complied as per the act.
5.	Necessary funds should be provided in the project for the implementation of the above mentioned conditions and environmental safeguards. The funds earmarked for the environmental protection measures should not be diverted for other purposes and year-wise expenditure should be reported to this Ministry.	<p>a.) A total amount of Rs.62 corers had been spent for procurement, erection, commissioning of different APCE and implementing different environmental safeguards.</p> <p>b.) Expenditure for environmental protection and other environment related activities during the period from October 2019 – March 2020.</p> <p><b>Please refer Table - VI.</b></p>
6.	An Environmental Management Cell with suitable qualified people to carryout various functions should be set up under the control of a senior executive who will report directly to the Head of the Organization to monitor the pollution levels and implement the stipulations and other co-ordinate with the inter-disciplinary committee as envisaged in condition No. IV.	A separate Environmental Management Division is in operation since the inception of the plant with suitable qualified personnel. The division is further strengthen by appointment of a senior executive who directly reports to Unit Head.

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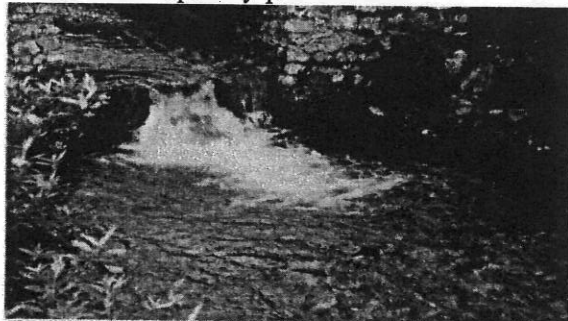
Annexure I

Sr.No.	STIPULATION	IMPLEMENTATIONS
12.1	<b>Plant Site</b>	The Plant site was selected by a committee of members as per the guidelines issued by the MOEF, New Delhi, at Vill. Suli, Darlaghat, Distt. Solan (H.P)
12.1.1	Storage of Raw Material	<p>a.) Limestone is conveyed from Kashlog Limestone Mines through 2.8 kms. long OVER LAND BELT CONVEYOR (OLBC) which is entirely covered and each transfer point of which from Crusher at Mines to Stacker at Plant is equipped with a bag filter.</p> <p>b.) Limestone is being stored in a completely covered yard and stacked &amp; reclaimed through an automatic operation.</p> <p>Additives for raw mix are stored inside the covered yard and fed through mechanical means.</p> <p>c.) Coal is being stored in a completely covered yard and stacked by Stacker (equipped with B/F) and reclaimed through Reclaimer.</p> <p>d.) Clinker is stored in the covered stockyards, equipped with B/Fs.</p> <p>e.) Fly-ash is stored in the RCC Silo equipped with tippler for unloading of trucks and has a pneumatic conveying system to Cement Mill.</p> <p>f.) Gypsum and Iron Ore are stored in covered yards.</p> <p>g.) Cement storage is in silo(s) equipped with bag filters.</p> <p>h.) All the material transfer points are equipped with B/Fs.</p>
12.1.2	<p>Proper designed green belt should be provided in and around the plant Site.</p> <ul style="list-style-type: none"> <li>Special attention should be given to plantation along the roadside.</li> </ul>	<p>a.) A Nursery was setup on 15<sup>th</sup> July, 1992 with an annual capacity of 5,000 with qualified staff from forestry and horticulture.</p> <p>b.) Plantation work is in progress. Approximately <b>1160</b> numbers of plants and cuttings have been planted in and around the factory and mines area from October 2019 – March 2020. (Please refer the Table - 3).</p>
12.1.3	Supply of Water	<p>a.) Necessary Permission for water supply has been obtained from the concerned authority to lift water from Pazeena Khud.</p> <p>b.) Clearance for Forestland has been obtained from MoEF.</p>
	<ul style="list-style-type: none"> <li>Sprinkling of water during construction</li> </ul>	a.) Currently there is no construction at Plant. However, we are spraying water on mine haulage

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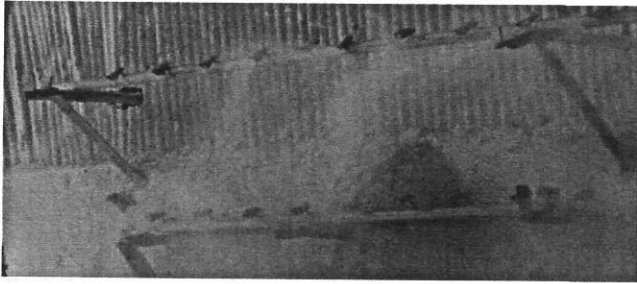

	<p>Phase.</p> <ul style="list-style-type: none"> <li>• Provision of water to the adjoining Villages</li> </ul>	<p>road during mining activities to control fugitive emissions.</p> <p>b.) Water connection has been provided to the adjoining villages.</p>
12.1.4	Link Roads	<p>All the required funds had been paid to P.W.D for widening of existing roads from Darlaghat to Factory site by State P.W.D at the cost of promoters and the work has been finished.</p>
	<ul style="list-style-type: none"> <li>• Provision of Parking lot at the plant site</li> </ul>	<p>Two areas for the parking lot have been developed for the parking of the trucks inside and out side the factory area.</p>  <p align="center">Concreted truck yard outside the factory gate.</p>
12.1.5	Architectural Drawings.	<p>Wherever, possible ACL has taken care to utilize natural lighting while designing and construction of Buildings and colony .</p>
12.1.6	Buffer Zone	<p>Government of Himachal Pradesh, Industries Department vide notification dated 19<sup>th</sup> February, 2002 (Registered No. HP/13/SML/2001) was satisfied that it is necessary in public interest to do so. Therefore, the Governor of Himachal Pradesh directed that no case of highly polluting or hazardous industry will be processed/allowed to be set-up in the buffer zone between the cement plant of M/S Ambuja Cements Ltd. and the outer periphery of re-organized Darlaghat Wildlife Sanctuary by the Government of Himachal Pradesh except the second unit/expansion project of M/S Ambuja Cements Ltd.</p> <p>The area of buffer zone was also specified.</p>
12.1.7	Use of Renewable Sources of Energy.	<p>Four Solar streetlights have been installed.</p>  <p>The wind power energy generation at Darlaghat is</p>

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		not feasible as maximum wind speed is 28 Km./Hr. and the frequency is approximately 2% - 4% of a year.
12.1.8	Layout of the Plant	Natural drainage system has been provided and retaining walls have been made on the both sides of the plant boundary wherever necessary to prevent soil erosion. Slope protection has been taken care by means of plantation.
<b>12.2</b>	<b>Mining Area</b>	
12.2.1	Mining Plan	The mining plan is approved by IBM Dehradun and is valid up to March 2022. The implementation of mining plan is reviewed by different state government authorities from time to time.
12.2.2 & 12.2.3	Water Management & Water Quality	<p>a.) Check dams &amp; 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>b.) The water quality of Gyana Khud (A rivulet passing near by Mining Area) is tested periodically at our own laboratory and results are submitted to State Pollution Control Board on monthly basis. No deviation has been observed so far in the water quality parameters.</p>  <p align="center"><b>V notch at Gyana Khad. Pl. refer table - VIII</b></p>
12.2.4	Dust Control	<p>a.) Advanced blasting technique such as use of NTD, controlled blasting are practiced to avoid dust generation and fly rock during the time of blasting.</p> <p>b.) Automatic water spraying system has been provided at crusher hopper to arrest fugitive dust generated during the unloading of Dumpers.</p> <p>c.) Water is continuously sprayed at haulage roads throughout the working hours with the help of water tankers.</p>



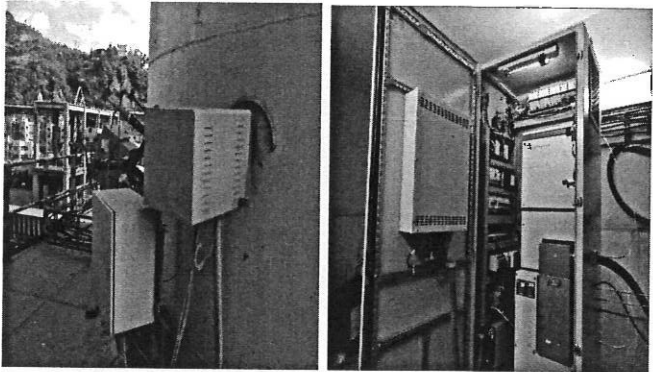
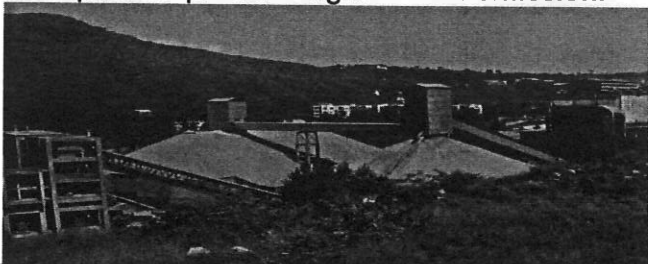
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		 <p>Automatic water sprinkler at crusher hopper</p>
12.2.5	Management of Over Burden	<p>No over burden is generated from mining. Required funds had been deposited with the H.P. Forest department for compensatory plantation in lieu of the existed Chil plantation.</p>
12.2.6	Solid waste Management	<p>There is a very less quantity of topsoil available in mining area. However, the topsoil removed during mining operation is kept separate and is used for plantation purpose.</p>  <p>Topsoil stacked separately for reclamation and rehabilitation</p>
12.2.7	Blasting Techniques	<p>a.) Use of IKON digital energy control system has been started to blast in critical areas. This system is more precise and accurate and generates less ground vibrations, fly rock and give better fragmentation.</p> <p>b.) 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>c.) Secondary blasting is avoided by use of Hydraulic rock breaker.</p>

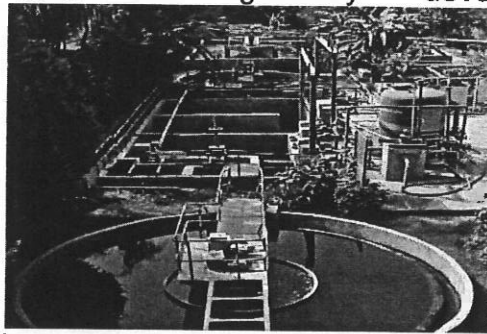
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		 <p align="center">Rock breaker</p>
12.2.8	Barrier/Blasting wall	Retaining walls have been made to control possible rolling stone problem all along the haul road between villages and Mining Lease area.
12.2.9	Baseline Data	Base line data was collected and submitted by means of EIA/EMP report to MoEF and HPSPCB.
12.2.10	Soil Conservation Measures	<p>a.) Check dams &amp; check filters are provided surrounding to mines area for water quality management. Apart from this, retaining walls are also constructed. For the design of the check dams/check filters a study was also done through Roorkee University and recommendations are implemented.</p>  <p align="center">Check dams</p> <p>b.) Plantation along the ML area is in progress by planting mostly local species. Also area which are in non-mineralized zone and along the haul road / near mines office etc. are taken up for plantation purpose.</p>


**Compliance of Conditions laid down by MoEF for Expansion of Cement Plant  
(2.0 MTPA to 2.6 MTPA Clinker) at Village Suli October 2019 to March 2020**

<b>A. SPECIFIC CONDITIONS</b>		
<b>Sl. No.</b>	<b>Condition</b>	<b>Compliance Status</b>
i	Continuous stack monitoring facilities for all stacks and adequate air pollution control systems e.g. electrostatic precipitators (ESP) to clinker cooler and cement mill; glass bag house to raw mill and kiln; bag filters to raw mill hoppers, blending silo/kiln feed, clinker storage, coal mill system, packing plant, transfer points etc. shall be provided to keep emissions levels below 100 mg/Nm <sup>3</sup> . Storage of raw materials viz. limestone, coal, clinker shall be in closed roof sheds covered stockpiles. Water sprinkling arrangement shall be made in the raw material stock yard and cement bag loading areas.	<p>a.) <b>CEMS</b> has been installed at GBH attached to Raw Mill and Kiln section. CPM have been installed at Clinker Cooler, cement Mill 2 &amp; 3 and Coal mill.</p>  <p align="center"><b>CEMS installed at Kiln/Raw Meal stack</b></p> <p>b.) Stack emissions are regularly monitored and the results are submitted to HP SPCB on monthly basis and to the Regional Office of MoEF at Chandigarh on six monthly basis.</p> <p>c.) Each and every material transfer point is equipped with a bag filter.</p> <p>d.) All the raw materials are stored in covered area.</p> <p>e.) Water sprinkling arrangements have been made wherever required.</p> <p>Monthly stack monitoring data is enclosed as <b>Table - I</b></p>
ii	The company shall install dust collectors to control dust emissions from the transfer points, loading and unloading areas. A closed clinker system shall be adopted to control fugitive emissions. Dust collection system and water spray system shall be provided in raw material stock yard and cement bag loading areas to control fugitive emissions.	<p>a.) Each and every material transfer point is equipped with a bag filter to control the dust emissions.</p> <p>b.) Clinker is stored in completely covered stockpiles to prevent fugitive dust emission.</p> 

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		Covered clinker stockpiles
iii	Secondary fugitive emissions shall be controlled within the prescribed limits and regularly monitored. Guidelines / Code of practice issued by the CPCB in this regard shall be followed.	Guidelines / Code of practice issued by the CPCB in this regard is followed to control secondary fugitive emissions.
iv	Total existing water requirement from Pazeena Khud (a tributary of River Sutluj) is 1,200m <sup>3</sup> /day and shall not exceed the limit even after expansion. Close circuit system shall be adopted for cooling. No wastewater shall be discharged from the process outside the premises and all the treated wastewater from Sewage Water Reclamation Plant (SWRP) shall be recycled and reused in the cement manufacturing process and/or for dust suppression, green belt development and other plant related activities etc. 'Zero' discharge shall be adopted. SWRP shall be further augmented as per the requirement of the expansion project.	<p>Being the "Dry Process" of cement manufacturing, no waste water is generated from the process. However the domestic waste water generated from residential facilities as well as from the offices is being treated at SWRP. Treated water thus generated is reused for greenery development, dust suppression, cooling makeup etc. and the biological sludge generated is used for greenery development.</p>  <p>Pl. refer table - II</p>
v	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment. Due to enhanced movement of trucks due to expansion of project and other cement industries in the same region, the industry may consider the feasibility of setting up of the conveyor belt transportation system for the raw materials as well as final product to decongest the traffic in the hill region in collaboration with the Central Road Research Institute, New Delhi.	<p>a.) All possible efforts are being made to reduce impact of the transport of the raw materials and end products on the surrounding environment. All the trucks used in transportation of raw materials semi finished/finished products are covered with tarpaulin.</p> <p><b>New multi axel trucks have been introduced for transportation of the raw materials semi finished/finished products.</b></p>
vi	All the Cement Dust collected from pollution Control devices shall be 100% recycled and reused in the process and used for cement manufacturing. Treated STP Sludge from SWRP shall be used for green	All the particulate matter collected through air pollution control devices is automatically recycled in the process. The biological sludge generated is used for greenery development.


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(2.0 MTPA to 2.6 MTPA Clinker) at Village Suli October 2019 to March 2020**

	belt development.	
vii	All the fly ash shall be utilized as per flyash Notification, 1999 subsequently as amended in 2003.	All the fly ash is being utilized as per flyash Notification no. SO 2623 (E) dated 6 <sup>th</sup> November 2008.
viii	An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provisions shall be made accordingly.	High calorific hazardous waste of Shiwalik Solid Waste , is being used in the cement kiln and necessary provisions have already provided.
ix	Green belt shall be developed in and around the expansion project in atleast 25 % of the area as per the CPCB guidelines in consultation with local DFO. Plantation shall also be done along the road side between Ropar & Darlaghat in collaboration with the State forest department due to regular plying of trucks carrying flyash and cement.	<p>a.) Plantation is an integral part of our activities. Plantation of more than 1160 Plants / saplings has been raised in and around Plant and Mining area (Oct. - 19 to Mar. - 20).</p>  <p>Road side plantation along NH-88 Green Belt Development report has been submitted by HFRI on dated 10<sup>th</sup> November 2017.</p>
x	The environmental clearance is subject to obtaining clearance under the wild life (Protection) Act, 1972 from the competent authority. Conservation plan for the schedule I Fauna shall be prepared in consultation with Chief Wild life warden, Government of H.P. and necessary funds for implementation of the same shall be allocated.	Wildlife conservation plans have been prepared in consultation with State Forest & Wildlife Department and the same are authenticated by PCCF (Wildlife) vide letter dated WL(Misc)-73/Mining/VI/8295 dated 14/01/2014 and WL(Misc)-73/Mining/VI/7473 dated 24/12/2013. The allocated necessary funds for the purpose have already earmarked in the conservation plan and Rs. 9710000/- (Rupees ninety seven lakh ten thousand only) have already been submitted for the wildlife conservation activities vide letter no. ACL/CPRP.AFFAIRS/WL CESS/2015 dated 17/01/2015. Copies of wildlife conservation plan including their action plans have been forwarded vide letter no. ACH/EMD/WLCP/11/2015 dated 23/11/2015. Rs. 47.90 lacs has been submitted as part of commitment in WLCP to State Wildlife Forest Deptt. through CAMPA Account (RTGS) on 18/03/2016 for year 2016. Recently we have submitted Rs. 10 lacs to State Wildlife Forest Deptt. through CAMPA Account. Total amount submitted Rs. 1.55 crores for WLCPs.

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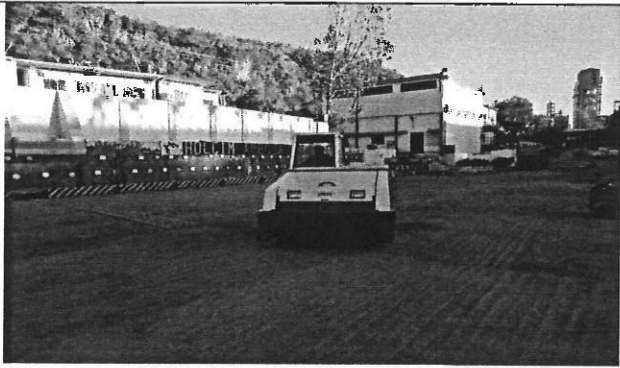
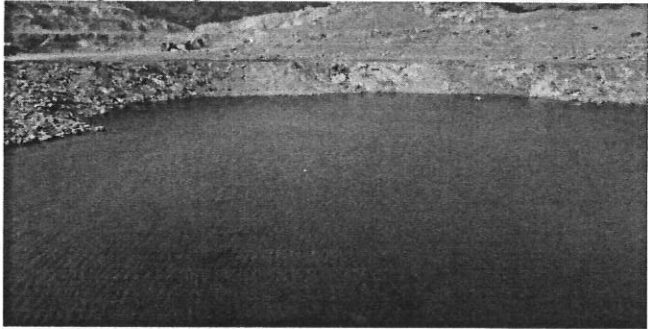

xi	The environmental clearance is subject to the final orders of the Hon <sup>ble</sup> Supreme Court of India in the matters of Goa Foundation vs. UOI in Civil Writ Petition No. 460 of 2004 as may be applicable to this project.	Final orders of the Hon <sup>ble</sup> Supreme Court of India Shall be complied as may be applicable to the project.
<b>B. GENERAL CONDITIONS</b>		
i	The project authority must adhere to the stipulations made by H.P. State Pollution Control Board (HP SPCB) and State government.	All the stipulations made by H.P. State Pollution Control Board (HP SPCB) and State government shall be adhered.
ii	No further expansion or modification of the plant shall be carried out without prior approval of this ministry.	Noted and complied.
iii	The gaseous and particulate matter emission from various units should conform to the standards prescribed by the State Pollution Control Board. At no time, the particulate emissions from the cement plant and captive power plant (CPP) shall exceed 100 mg/Nm <sup>3</sup> . Inter locking facility shall be provided between pollution control equipment and the process operation so that in the event of pollution control equipment not working, respective unit(s) is shut down automatically.	Emissions from the Cement Plant is being maintained well below the limits prescribed by State Pollution Control Board. Inter locking facility has been provided between pollution control equipment and the process operation so that in the event of pollution control equipment not working, respective unit(s) shut down automatically. In addition to this we also conduct third party stack monitoring by SGS India Ltd.
iv	Ambient air quality including ambient noise levels shall be monitored at different locations including fence of sanctuary and must not exceed the standard stipulated under EPA or by the State authorities. Monitoring of ambient air quality and stack emission shall be carried out regularly in consultation with HP SPCB and report submitted to the Board quarterly and to the Ministry's	Monitoring is being carried out on regular basis. Ambient Air Quality and Stack monitoring is carried out and the results are submitted to the State Pollution Control Board on monthly basis and to the Ministry's Regional Office at Dehradun half yearly. Continuous stack monitoring systems are installed at six stacks i.e. GBH, Cooler ESP, Cement Mill 1, 2 & 3 ESP/Bag Filter, Coal Mill and E-Mill Bag Filter.

**Compliance of Conditions laid down by MoEF for Expansion of Cement Plant  
(2.0 MTPA to 2.6 MTPA Clinker) at Village Suli October 2019 to March 2020**

	Regional Office at Chandigarh half yearly. Continuous stack monitoring system shall be installed.	 <p align="center"><b>Monitoring of GBH stack</b> Ambient air quality including ambient noise levels at sanctuary area is being carried out.</p>
v	Industrial waste water shall 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. The treated waste water shall be utilized for plantation purpose.	No industrial waste water is being generated from the production process. However waste water generated from offices and residential facilities is being treated at Sewage Treatment Plant and the treated water thus generated is used for greenery development and process cooling makeup etc.
vi	The over all noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (Day time) and 70 dBA (Night time).	<p>a.) All the precautionary measures have been taken to keep the noise levels within the prescribed limits.</p> <p>b.) Physical &amp; biological barriers have been provided at suitable/available locations.</p>
vii	Proper house keeping and adequate occupation health programmes must be taken up. All the persons working in the sensitive area shall wear protective covers. Occupation health surveillance programme shall be done on regular basis and records maintained. The program must include lung function and sputum analysis test once in six months.	Proper house keeping and adequate occupation health programmes are taken up. All the persons working in the sensitive area have been provided with the required Personal Protective Equipments (PPEs). Regular checkup of the employees is being done and records are maintained.



**Compliance of Conditions laid down by MoEF for Expansion of Cement Plant  
(2.0 MTPA to 2.6 MTPA Clinker) at Village Suli October 2019 to March 2020**

		 <p align="center"><b>Road sweeping machine</b></p>
viii	The company must harvest surface as well as rain water from the roof top of the buildings proposed in the expansion projects and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	<p>Suitable drainage systems are provided to recharge the ground water.</p>  <p align="center"><b>Rain water harvesting</b></p>
ix	The company shall follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP) especially all the major stacks shall be provided with continuous emission monitoring for particulate matter.	<p>As per the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP), six stacks have been provided with continuous emission monitoring for particulate matter.</p>
x	The company shall under take eco development measures including community welfare measures in the project area.	<p>Ambuja Cement Foundation has been set up for taking care of the community development / welfare measures in the project area.</p>  <p align="center"><b>Distribution of plants to community</b></p>



**Compliance of Conditions laid down by MoEF for Expansion of Cement Plant  
(2.0 MTPA to 2.6 MTPA Clinker) at Village Suli October 2019 to March 2020**

xi	The project proponent shall also comply with all the environmental protection measures and safe guards recommended in the EIA/EMP.	All the environmental protection measures and safe guards recommended in the EIA/EMP are being considered for its implementations there of.
xii	A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions should be set up under the control of Senior Executive.	<p>A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions have been set up under the control of Senior Executive.</p>  <p align="center"><b>Water analysis</b></p>
xiii	As proposed, the project authorities shall earmark Rs.2.5 Crores towards environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment & Forest as well as the State Government. An implementation schedule shall be submitted to the Regional Office at Chandigarh to implement all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	All the conditions stipulated herein the clearance letter as well as by the State Government are being implied thereof.
xiv	The Regional Office of this Ministry at Chandigarh/Central Pollution Control Board/HP SPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.	We are facilitating the officials from the Regional Offices of this Ministry at Dehradun/Central Pollution Control Board/HP SPCB to monitor the stipulated conditions. A six monthly compliance report is already being submitted to the Regional office of Ministry at Dehradun regular basis.

**Compliance of Conditions laid down by MoEF for Expansion of Cement Plant  
(2.0 MTPA to 2.6 MTPA Clinker) at Village Suli October 2019 to March 2020**

xv	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by concerned authorities and date of commencing the land development work.	There was no new land development. The date of financial closure shall be informed to the Regional office as well as Ministry in due course of time.
xvi	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the HP SPCB and may also be seen at web site of the Ministry of Environment & Forest at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This should be advertised within seven days from the date of issue of clearance letter at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the regional office.	It has been advertised in two local news papers that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the HP SPCB and may also be seen at web site of the Ministry of Environment & Forest at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . A copy of the same has already been submitted to the regional office at Dehradun.

**Suli Plant Renewal of 'Consent to Operate' u/s 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981.**

**Consent valid up to: 31/03/2024**

**TERMS AND CONDITIONS**

**A. SPECIFIC CONDITIONS**

Sr. No.	Consent conditions	Remarks/Status
1.	This 'Renewal of Consent to Operate' is only for the purpose and under the provision of Water Act, 1974 and Air Act, 1981 as the case may be, and will not construed as substitute for mandatory clearances required for the project under any other law/regulation/direction/order and the applicant shall obtain any such mandatory clearance before taking any steps to establish industry/ industrial plant, operation or process or any treatment and disposal system or an extension or addition thereto.	We have obtained all the necessary permissions.
2.	Nothing in this Consent shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected to under this or any other Act.	Noted.
3.	The unit shall apply for further renewal/extension in the validity of the Consent, before the expiry of this 'Renewal of Consent to Operate'.	We will apply for consent before the expiry of this consent.
4.	<p>i) The unit shall ensure compliance of Waste Management Rules i.e. Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016/ Plastic Waste Management Rules, 2016/ E-Waste (Management) Rules, 2016/Construction &amp; Demolition Waste Management Rules, 2016 and Manufacture, Storage &amp; Import of Hazardous Chemical Rules, 1989 and provisions made there-under, as amended from time to time, without any adverse effect on the environment, in any manner (As Applicable).</p> <p>ii) The unit shall made provisions for the compliance Solid Waste Management Rules, 2016 and provisions made there-under and unit shall also not practice burning activity of solid waste/waste generated from fuel within/outside premises, to avoid public nuisance.</p>	<p>We are complying the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016/ Plastic Waste Management Rules, 2016/ E-Waste (Management) Rules, 2016/Construction &amp; Demolition Waste Management Rules, 2016.</p> <p>The annual return for the same is being submitted before 30th June every year.</p>
5.	<p>This 'Renewal of Consent to Operate' is for:-</p> <p>i) The emissions from all sources conforming to the norms as prescribed in Schedule-I of Environment (Protection) Rules, 1986 as amended from time to time.</p> <p>ii) Noise and Ambient Air Quality shall be maintained within Ambient Air Quality Standards for noise as specified in Schedule-III of Environment (Protection) Rules, 1986 and Noise Pollution (Regulation and Control) Rules, 2000, as</p>	<p>(i) Noted.</p> <p>(ii) Noise and Ambient Air Quality is being maintained well below the prescribed standards. The results of the same are being submitted</p>

	<p>amended from time to time.</p> <p>iii) The effluent (Domestic/Industrial) shall conform to the limits as prescribed in Schedule-I or Schedule-VI or Industry specific standards of Environment (Protection) Rules, 1986 as amended from time to time.</p> <p>iv) Sewage and sludge generated from the unit to be disposed-off in a properly designed septic tank system/Sewage Treatment Plant/ Public Sewer System (as applicable).</p>	<p>in monthly report.</p> <p>(iii) Due to dry process no effluent is being generated from the process. The domestic waste generated is treated in STP and the recycled water is used for plant cooling and for horticulture use.</p> <p>(iv) Sewage and sludge generated from STP is used as manure for plantation.</p>
6.	The unit shall ensure regular operation and maintenance of Pollution Control Devices to achieve the norms as prescribed in Environment (Protection) Act, 1986 and the achievement of the adequacy and efficiency of the effluent treatment plant/pollution control devices/re- circulation system installed shall be the entire responsibility of the unit.	Regular operation and maintenance of APCDs is being carried out to keep the emission level within the prescribed limits. Due to dry process no effluent is being generated from the process.
7.	The unit shall ensure regular operation and maintenance of separate energy meter/flow meter for running pollution control devices and shall also maintain record with respect to operation of air pollution control device/effluent treatment plant, so as to satisfy the Board regarding the regular operation of air pollution control device/effluent treatment plant and shall maintain log book for the monthly reading / record.	Separate energy meter has been installed and records are maintained.

#### CONDITIONS UNDER WATER (PREVENTION & CONTROL OF POLLUTION) ACT, 1974.

8.	<p>a) The unit shall maintain the record regarding the daily water consumption as per flow meter installed.</p> <p>b) The unit shall ensure that terminal manhole(s) at the end of each collection system and a manhole upstream of final outlet (s) out of the premises of the industry for measurement of flow and for taking samples.</p> <p>c) The pollution control devices shall be interlocked with the manufacturing process of the industry (if applicable) and the authorized outlet and mode of disposal shall not be changed without the prior written permission of the Board. Unit shall not use any unauthorized outlet(s) for discharging effluents from its premises.</p> <p>d) Solids, sludge, filter backwash or other pollutant removed from or resulting from treatment or control of waste waters shall be disposed-off in scientific manner.</p>	<p>a) Water consumption records are maintained.</p> <p>b) In Sewage water reclamation plant, Manholes have been provided at collection system for flow measurement and taking samples. Water meter has been installed at the final outlet.</p> <p>c) Noted.</p> <p>d) We are maintaining zero discharge. Sludge generated from STP is used as manure for horticulture activities.</p>
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**CONDITIONS UNDER AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981.**

9.	<p>a) The unit shall ensure port-holes, platforms and/or other necessary facilities as may be required for collecting samples of emissions from any chimney, flue or duct or any other outlets as per the specifications.</p> <p>b) The unit shall discharge air emissions through a stack of minimum height as specified in 'Consent to Establish' and shall follow standards laid down from time to time.</p> <p>c) For industrial furnaces and kilns, the criteria for selection of stack height would be based on fuel used for the corresponding steam generation &amp; as per specification.</p> <p>d) Unit shall ensure Stack height for diesel generating sets as per specification.</p> <p>e) The unit shall ensure regular operation and maintenance of installed canopy and stack of the D.G sets so as to control the noise &amp; air pollution in order to comply with the provision of notification No GSR-371 E dated 17-5-2002 or direction as issued by MOEF from time to time, under Environment (Protection) Act, 1986.</p> <p>f) The unit shall ensure disposal of boiler ash/fuel ash through authorized person or within premises in a scientific manner (as the case may be) and shall maintain proper record for the same, if applicable.</p> <p>g) The unit shall ensure regular operation and maintenance of air pollution control arrangements for control emission from its coal/fuel handling area and from handling, transportation and processing of raw material &amp; product of the industry.</p>	<p>a) All necessary facilities have been provided for collecting samples.</p> <p>b) Being complied.</p> <p>c) Being complied.</p> <p>d) Being complied.</p> <p>e) We are using D.G. sets as stand by. The noise and air pollution is well within the prescribed limits.</p> <p>f) NA</p> <p>g) All the raw materials including fuel are being stored in closed sheds and also transported in trucks covered with tarpaulin.</p>
10.	The unit shall ensure valid and approved on-site and off-site emergency plan, approved by the Chief Inspector of Factories, Himachal Pradesh (If applicable).	On-site and off-site emergency plans are approved by the Chief Inspector of Factories, HP.
11.	The unit shall ensure regular operation and maintenance of real time online monitoring equipment's and provisions for the un-interrupted transfer of data as per guidelines of CPCB (if applicable).	AMC has been given to the suppliers of real time online monitoring equipments and the data is being submitted to CPCB without interruption.
12.	The unit shall provide adequate arrangements for fighting the accidental leakages/ discharge of any air pollutant/gas/liquids from the vessels, mechanical equipment's etc. which are likely to cause environmental pollution.	As per emergency preparedness plan we have provided adequate arrangements
13.	The unit shall plant & maintain minimum three layer of trees so far possible as per plantation guide (may be download from the website <a href="http://hppcb.nic.in/plantationguide.pdf">http://hppcb.nic.in/plantationguide.pdf</a> ) all along	Plantation is being raised in consultation with HFRI Shimla.

	the boundary of the industrial premises and check air/water/noise pollution at source.	
14.	Any guidelines issued by the Central Government/State Government/MoEF/CPCB/SPCB/any other authority concerned, shall be binding.	Noted.
15.	This 'Renewal of Consent to Operate' is subject to orders on any litigation pending in any Court of Law. Any direction/order issued by any court shall be binding (if any).	Noted
16.	The Board reserves the right to revoke the 'Renewal of Consent to Operate' granted to the industry at any time, in case the industry is found violating the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 as amended from time to time.	Noted.
17.	The unit shall comply with any other conditions laid down or directions issued in due course by the Board under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981.	Noted.

#### B. OTHER CONDITIONS

1.	The unit shall comply with the conditions imposed by the MoEF/State Level Environment Impact Assessment Authority/ District Level Environment Impact Assessment Authority in the environmental clearance granted to it as required under EIA notification dated 14-9-06, if applicable.	EC conditions are being complied and reports are submitted to MoEF & CC with a copy marked to HPSPCB on half yearly basis.
2.	The issuance of this consent does not convey any property right in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State or Local Laws or Regulations.	Noted.
3.	Stone Crusher units shall comply with the provisions of guidelines notified by the State Government vide Notification No. STE-E(3)-11/2012, dated 29-05-2014 (If Applicable).	NA
4.	Brick Kiln units shall comply with the provisions of guidelines notified by the MoEF vide Notification No. G.S.R.233.(E), dated-15-03-2018 and by the State Government vide Notification No. STE-E(5)-6/2013, dated-07-03-2014 (If Applicable).	NA
5.	Hydroelectric Projects shall install Online Real Time Monitoring System for the measurement of 15% of minimum discharge in lean season as per orders of Court/Government. The unit shall also ensure provisions for the regular and uninterrupted transfer of data from the real time online monitoring system for 15% of minimum discharge of flow to SPCB, failing which unit shall be liable for action on account of violation of the directions issued by Court/Government/SPCB in this regard (If Applicable).	NA
6.	Unit shall strictly adhere to the capacity approved by the Industries Department/ Department of Tourism & Civil	Noted.

	Aviation/any other concerned Authority (As Applicable).	
7.	The unit shall not cause any nuisance/traffic hazard in vicinity of the area.	Alternate road has been constructed in order to decongest the traffic in the area.
8.	The unit shall ensure that there will not be significant visible dust emissions beyond the property line.	There is no visible dust emission in our unit.
9.	The unit shall obtain and submit Insurance cover as required under the Public Liability Insurance Act, 1991.	Complied.
10.	Unit shall submit all the annual/quarterly returns, as per timeline.	Complied.
11.	The industry shall submit a yearly certificate to the effect that no addition/up-gradation/ modification/ modernization has been carried out during the previous year otherwise the industry shall apply for the varied consent.	An affidavit for no addition/up-gradation/ modification/modernization will be submitted every year.
12.	The unit shall maintain record regarding the operation of effluent treatment plant i.e. record of quantity of chemicals and energy utilized for treatment and sludge generated from treatment so as to satisfy the Board regarding regular and proper operation of pollution control equipment.	Due to dry process there is no ETP. The domestic waste water is being treated in STP.
13.	Any amendments/revisions made by the Board/CPCB/MOEF in the emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.	Noted.

### C. SPECIAL CONDITIONS

1.	This Consent is subject to validity of Mining lease.	Noted.
2.	This Consent is subject to Fuel Policy to be framed by the Government of HP.	We shall adhere to the fuel policy which is being framed by Govt. of HP.
3.	The Project Proponent shall be liable to clear any past/current liability on account of difference of Consent fees including penalties if detected at any subsequent stage.	Noted
4.	This Consent is subject to guidelines issued by the Moef & CC vide letter No. Q18011/54/2018-CPA, dated-10-09-2018 regarding guidelines for Regulation & Monitoring of Imported Pet-coke.	Being complied.
5.	The Project Proponent shall ensure measure for control of air emission, fugitive emission, trade effluent and noise limit with the prescribed standards.	Dust and Noise emissions are well within the prescribed limits. There is no trade effluent generated.
6.	The Project Proponent shall ensure the storage of hazardous chemical within threshold limit or Consented capacity.	NA
7.	This Consent is subject to final outcome of any order/direction issued by any Court of Law.	Noted.
8.	The Project Proponent shall ensure the compliance of the standards notified vide GSR No. 497 (E), dated-10-05-2016 for the Cement Industry.	The new emission standards notified vide GSR No. 497 (E), dated-10-05-2016 for the Cement

		Industry are being complied.
9.	The Project Proponent shall ensure compliance of conditions imposed in Environmental Clearance and previous Consent.	Complied.
10.	The Project Proponent shall ensure that, there shall be no violation of orders of any Hon'ble Court/Nation Green Tribunal.	Noted.
11.	The unit shall not manufacture the Clinker and Cement more than consented quantity.	Noted.



Table - I

**Weekly Average of Stack Monitoring Results**  
**(FROM October 2019 - March 2020)**

MONTHS	Average PM Value in mg./Nm <sup>3</sup>					
	Glass Bag House	Cooler ESP	Cement Mill ESP II	Coal Mill B/F	E-Mill B/F	
<b><u>Oct-19</u></b>	7.4	19.5	15.3	19.0	9.0	17.8
	16.3	23.9	10.6	24.8	13.6	19.1
	9.9	11.3	21.0	23.1	7.2	15.4
	12.7	21.4	18.8	13.2	14.3	20.5
<b><u>Nov-19</u></b>	10.4	16.8	12.8	20.5	10.9	19.1
	9.5	18.8	14.4	17.0	11.8	16.5
	13.6	19.2	9.5	21.9	9.5	15.4
	12.7	16.7	15.6	16.2	11.2	17.6
<b><u>Dec-19</u></b>	9.4	17.5	13.8	16.1	11.2	18.6
	*	*	10.8	*	*	19.00
	11.60	19.20	11.3	15.40	12.20	13.70
	10.30	25.60	13.0	17.70	13.10	17.40
<b><u>Jan-20</u></b>	9.20	16.00	12.4	17.80	9.50	16.0
	9.70	20.40	10.4	19.00	12.10	15.1
	8.10	15.80	13.0	16.10	10.60	14.3
	7.9	19.8	11.8	14.3	11.1	18.2
<b><u>Feb-20</u></b>	6.4	11.8	13.4	15.5	10.3	14.4
	12.8	18.4	14.6	14.4	11.2	12.4
	10.7	16.7	18.4	16.5	8.1	16.0
	9.2	13.5	12.3	12.2	6.0	15.3
<b><u>Mar-20</u></b>	11.2	12.1	11.1	14.1	9.5	11.2
	10.9	13.7	10.4	16.3	13.1	15.8
	7.8	11.6	9.5	12.6	10.4	13.7
	9.3	16.4	10.3	13.6	12.2	14.4

Note: \* Out of Operation

**Table - 2**

**Inlet and Outlet Sewage Water Characteristics (Monthly Average)**  
**(From October 2019 to March 2020)**

MONTHS	INLET			OUTLET		
	pH	BOD	TSS	pH	BOD	TSS
Oct-19	8.09	257.30	360.00	7.50	11.30	12.20
Nov-19	8.08	258.00	354.67	7.40	11.30	12.80
Dec-19	8.10	252.70	357.70	7.50	12.70	12.70
Jan-20	8.10	253.50	256.00	7.50	11.50	11.60
Feb-20	8.10	251.00	358.00	7.50	10.50	12.30
Mar-20	8.10	253.50	361.00	7.50	10.00	12.30

Except pH, all parameters are in mg/lit.

Table - 3

**TOTAL NOS. OF PLANTS PLANTED**  
(FROM October 2019 TO March 2020)

Area of Plantation	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Total
Inside Plant Area	0	0	0	0	0	0	0
Around Plant Area	0	0	0	0	0	0	0
Within Colony Area	0	0	0	0	0	0	0
Inside Mines Area	170	155	175	260	210	190	1160
<b>Total</b>	<b>170</b>	<b>155</b>	<b>175</b>	<b>260</b>	<b>210</b>	<b>190</b>	<b>1160</b>

Total plantation inclusive cuttings, Saplings, Shrubs and replacement etc.

Table - IV

## Monthly Average of Ambient Air Quality Monitoring Results (Suli Plant)

(PM 10, PM 2.5, SO<sub>2</sub> and NO<sub>2</sub> Concentration in µg/m<sup>3</sup>) (For October 2019 - March 2020)

MONTH	Khata				Pacheaur				Batedh			
	PM 10	PM 2.5	SO <sub>2</sub>	NO <sub>2</sub>	PM 10	PM 2.5	SO <sub>2</sub>	NO <sub>2</sub>	PM 10	PM 2.5	SO <sub>2</sub>	NO <sub>2</sub>
Oct. - 19	48.69	29.86	7.71	13.24	45.96	30.86	4.38	9.66	51.81	32.29	5.89	13.10
Nov. - 19	63.31	35.24	6.16	13.59	45.33	32.79	4.75	10.39	45.48	29.30	5.68	11.43
Dec. - 19	61.97	34.15	6.70	14.68	64.50	33.69	5.71	10.73	64.31	29.08	5.38	11.96
Jan. - 20	63.63	30.33	6.13	14.85	60.88	27.95	4.23	11.40	66.57	34.59	5.48	12.04
Feb. - 20	68.04	30.18	6.83	15.44	65.08	30.13	4.88	11.16	67.30	30.91	5.81	12.70
Mar. - 20	62.80	34.90	7.40	15.88	56.20	24.94	5.20	11.73	61.04	36.30	6.08	12.93

MONTH	Khata				Pacheaur				Batedh			
	Lead µg/m <sup>3</sup>	Nickel ng/m <sup>3</sup>	Arsenic ng/m <sup>3</sup>	CO mg/m <sup>3</sup>	Lead µg/m <sup>3</sup>	Nickel ng/m <sup>3</sup>	Arsenic ng/m <sup>3</sup>	CO mg/m <sup>3</sup>	Lead µg/m <sup>3</sup>	Nickel ng/m <sup>3</sup>	Arsenic ng/m <sup>3</sup>	CO mg/m <sup>3</sup>
Oct. - 19	ND	ND	ND	0.48	ND	ND	ND	0.63	ND	ND	ND	0.71
Nov. - 19	ND	ND	ND	0.52	ND	ND	ND	0.49	ND	ND	ND	0.84
Dec. - 19	ND	ND	ND	0.74	ND	ND	ND	0.62	ND	ND	ND	0.96
Jan. - 20	ND	ND	ND	0.61	ND	ND	ND	0.48	ND	ND	ND	0.85
Feb. - 20	ND	ND	ND	0.84	ND	ND	ND	0.66	ND	ND	ND	0.91
Mar. - 20	ND	ND	ND	0.64	ND	ND	ND	0.56	ND	ND	ND	0.78

MONTH	Mines Dormitory				Rathoh				Mangoo				Chandi			
	PM 10	PM 2.5	SO2	NO2	PM 10	PM 2.5	SO2	NO2	PM10	PM 2.5	SO2	NO2	PM 10	PM 2.5	SO2	NO2
Oct. - 19	57.53	28.76	4.86	10.56	46.59	31.24	5.84	12.99	58.98	33.69	4.96	10.68	40.46	29.51	3.64	8.09
Nov. - 19	40.07	29.35	5.73	12.99	63.93	27.52	4.94	12.43	55.35	18.19	4.63	9.70	39.42	24.48	4.00	8.36
Dec. - 19	67.96	34.19	7.04	15.70	59.91	36.05	7.05	15.34	46.09	26.91	6.60	13.28	56.20	28.62	3.50	7.74
Jan. - 20	67.21	31.34	5.06	8.19	56.96	31.15	4.26	11.20	54.69	18.29	3.85	10.26	43.94	21.24	3.55	7.66
Feb. - 20	64.22	30.17	5.04	8.09	64.05	27.12	5.38	12.50	59.77	22.33	4.26	9.83	45.27	17.53	3.65	7.57
Mar. - 20	56.87	35.69	5.28	9.40	63.97	26.42	5.38	11.65	59.58	20.49	4.00	9.92	54.24	13.30	3.65	7.87

**Note : Location/Direction from the Plant and Mines .**

KHATA	1.0 km. E from Plant
PACHEUR	1.0 km. W from Plant
BATEDH	2.0 km. S from Plant
MINES D.	4.0 km. E from Plant
RATHOH	0.5 km. Near Crusher
MANGOO	3.0 km. SE from Mines
CHANDI	3.0 km. NE from Mines

**Monthly Average of Ambient Air Quality Monitoring Results Mining Area**

**(Lead, Nickel, Arsenic and CO) (From October 2019 To March 2020)**

MONTH	Mines Dormitory				Rathoh				Mangoo				Chandi			
	Lead µg/ m <sup>3</sup>	Nicke l ng/m <sup>3</sup>	Arsen ic ng/m <sup>3</sup>	CO mg/m <sup>3</sup>	Lead µg/m <sup>3</sup>	Nicke l ng/m <sup>3</sup>	Arseni c ng/m <sup>3</sup>	CO mg/m <sup>3</sup>	Lead µg/m <sup>3</sup>	Nicke l ng/m <sup>3</sup>	Arseni c ng/m <sup>3</sup>	CO mg/m <sup>3</sup>	Lead µg/m <sup>3</sup>	Nicke l ng/m <sup>3</sup>	Arseni c ng/m <sup>3</sup>	CO mg/m <sup>3</sup>
Oct. - 19	ND	ND	ND	0.46	ND	ND	ND	0.67	ND	ND	ND	0.52	ND	ND	ND	0.43
Nov. - 19	ND	ND	ND	0.56	ND	ND	ND	0.78	ND	ND	ND	0.61	ND	ND	ND	0.41
Dec. - 19	ND	ND	ND	0.78	ND	ND	ND	0.59	ND	ND	ND	0.70	ND	ND	ND	0.52
Jan. - 20	ND	ND	ND	0.82	ND	ND	ND	0.67	ND	ND	ND	0.58	ND	ND	ND	0.46
Feb. - 20	ND	ND	ND	0.86	ND	ND	ND	0.58	ND	ND	ND	0.62	ND	ND	ND	0.44
Mar. - 20	ND	ND	ND	0.90	ND	ND	ND	0.61	ND	ND	ND	0.58	ND	ND	ND	0.42

Table - 5

**MONTHLY NOISE MONITORING RESULTS (INSIDE PLANT) AT AMBUJA CEMENTS LTD. - UNIT HIMACHAL**  
(From October 2019 to March 2020)

MONITORING LOCATION	Oct-19		Nov-19		Dec-19		Jan-20		Feb-20		Mar-20	
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
<b>TIME OFFICE</b>												
With Vehicular Movement	69.8	67.1	76.3	75.7	78.8	78.4	79.6	78.1	62.7	60.9	74.6	72.9
Without Vehicular Movement	64.2	62.5	58.1	56.4	61.5	57.2	63.5	59.7	57.2	55.4	63.4	58.1
<b>Coal Crusher</b>	78.4	76.9	64.9	58.6	67.2	62.6	69.4	63.2	59.6	54.7	70.3	68.6
<b>GBH (Near MPSS)</b>	71.9	70.2	78.1	74.3	71.7	70.9	72.2	70.6	71.9	69.4	84.1	83.7
<b>Raw Mill</b>	84.4	84.1	82.4	81.8	84.3	83.4	84.7	83.9	84.7	84.2	84.7	83.9
<b>Cement Mill Area (Out Side)</b>	80.1	78.6	79.1	74.5	79.6	78.7	78.4	76.3	79.1	74.6	83.4	81.6
<b>In front of CCR</b>	73.6	72.1	68.3	63.9	70.1	69.3	70.7	69.8	74.5	72.3	78.7	75.4
<b>Inside Compressor House<sup>1</sup></b>	87	86.4	86.9	86.4	87.5	86.9	87.4	86.1	88.7	87.1	87.2	86.6
<b>Outside Compressor House<sup>1</sup></b>	71.2	70.6	81.6	80.2	74.7	73.2	73.6	72.5	71.4	70.6	82.5	81.8
<b>Inside Compressor House<sup>2</sup></b>	86.8	85.2	88.1	87.4	88.5	87	89.9	88.2	88.1	87.3	86.1	85.6
<b>Outside Compressor House<sup>2</sup></b>	70.5	69.8	84.8	83.1	78.7	78.4	78.5	77.8	87.6	87.1	83.6	82.4
<b>Blower House (Near Coal Mill)</b>	83.1	82.5	78.6	77.4	86.5	85.1	87.8	87.2	88.9	87.5	84	82.7
<b>Blower House (Below Blending Silo)</b>	73.8	71.9	76.3	74.7	85.4	84.3	89.6	88.4	84.3	82.8	82.5	81.2
<b>Blower House (Below Cement Silo 1)</b>	84.4	83.6	80.5	80.9	84.8	83.7	85.9	84.8	83.5	81.2	81.7	76.5
<b>Blower House (Below Cement Silo 2)</b>	83.9	83	81.8	80.3	88.2	87.5	84.7	84.3	84.8	83.6	83.3	80.1
<b>MAIN GATE</b>												
With Vehicular Movement	77.1	76.9	78.5	76.8	78.8	75.4	76.3	75.2	76.7	75.3	75.6	74.9
Without Vehicular Movement	62.5	61.3	64.9	59.3	60.6	57.9	61.5	58.7	57.2	53.5	55.9	52.5

Noise Level Unit - dB(A)

Table - VI

### Environmental Expenditure – SULI (October, 2019 – March, 2020)

Sr. No.	Environmental Expenditure Area	Capital/Recurring	Amount(Rs)
1	Air pollution control equipments maintenance, STP maintenance, Analyzers and other monitoring equipments maintenance.	Recurring	3794573
2	Monitoring and analysis of environmental parameters, studies, purchase of small new equipments ,plantation, fees, salaries etc.	Recurring	8170263
3	Air pollution control equipments running expenses	Recurring	82737850
4	Mines – construction of check dams/ check filters, Toe walls etc, Water spraying on haul roads, use of IKON, plantation, soil conservation works, water harvesting etc.	Capital Recurring	347636 1563972
5	Depreciation on Environmental assets	Recurring	12358244
6	Community development works	Capital Recurring	913406 29899459
7	Plant Housekeeping	Recurring	1730990
	<b>TOTAL</b>		<b>141516393</b>

**Fourteen Crores Fifteen Lacs Sixteen Thousand Three Hundred Ninety Three Only.**



Table - 7

**AMBIENT AIR QUALITY IN SURROUNDING VILLAGES**  
(FROM Oct. 2019 TO Mar. 2020)

Date	Village	Concentration (ug/m <sup>3</sup> )		
		PM2.5		PM10
		IS-5182-p-23	IS-5182-p-23	IS-5182-p-23
05-10-2019	Kangri	12.7		31.1
12-10-2019	Saryanj	15.4		38.6
19-10-2019	Khali	20.8		45.2
26-10-2019	Damlana	45.3		68.5
09-11-2019	Majathal	12.5		29.6
16-11-2019	Sewada	25.8		65.2
23-11-2019	Rachakda	37.5		50.1
30-11-2019	Badog	25.9		56.5
07-12-2019	Suli	39.6		52.83
14-12-2019	Bahan	29.4		48.42
21-12-2019	Saryanj	11.8		34.66
28-12-2019	Parnoo	28.9		41.11
04-01-2020	Kangri	9.4		31.5
11-01-2020	Dhundani	22.2		50.7
18-01-2020	Khali	12.8		28.2
25-01-2020	Chamla	42.3		67.6
08-02-2020	Saryanj	18.9		48.3
15-02-2020	Badog	24.6		56.2
22-02-2020	Braili	34.4		58.8
29-02-2020	Dhamog	38.9		62.4
07-03-2020	Devthi	25.8		53.6
14-03-2020	Nauni	26.7		36.9
21-03-2020	Karada	35.2		49.4
Lockdown due to Covid 19				

Table - 8

**Monthly Average of Gyana Khad Water Quality Analysis Report**  
(From October 2019 to March 2020)

MONTH	SAMPLING POINTS	PARAMETERS			
		pH	TSS	TDS	DO
Oct-19	1	7.4	29.5	327.3	4.5
	2	7.7	47.1	360.5	4.0
	3	7.6	44.1	343.6	4.9
	4	7.4	38.7	335.6	4.8
Nov-19	1	7.4	25.2	312.4	4.9
	2	7.7	39.3	344.5	4.4
	3	7.6	32.8	332.3	5.0
	4	7.4	27.5	322.1	5.2
Dec-19	1	7.3	21.3	309.6	5.0
	2	7.6	38.6	340.3	4.4
	3	7.5	35.2	321.7	5.2
	4	7.4	31.1	322.2	5.5
Jan-20	1	7.4	19.9	294.0	6.6
	2	7.7	39.4	321.1	5.7
	3	7.6	31.1	313.6	6.5
	4	7.5	25.3	306.3	7.2
Feb-20	1	7.3	30.1	304.0	5.3
	2	7.6	49.3	356.7	4.9
	3	7.4	43.9	336.5	5.8
	4	7.5	35.9	321.3	6.0
Mar-20	1	7.4	45.6	301.1	4.6
	2	7.8	59.4	342.9	3.7
	3	7.7	54.1	322.3	4.2
	4	7.4	49.5	313.1	4.8

**AVERAGE            7.5            37.2            325.2            5.1**

Except pH all the parameters are in mg/lit.