

O/C  
**Ambuja  
Cement**

88130

REGD. A/D

ACL/EMD/F-16/2020/2230

03.11.2020

**The Director,**  
Ministry of Environment, Forest and Climate Change (MoEF&CC),  
Regional Office, Western Region,  
"Kendriya Paryavaran Bhavan"  
Link Road No.3, Ravi Shankar Nagar,  
Bhopal – 462016, (M.P.)

**Sub. : Half Yearly Compliance Status Report of Environmental Clearance of *Sugala Limestone Mines*.**

**Ref. : Environmental Clearance No. J-11015/273/2007- IA.II (M) dated 12.05.2010**

Sir,

We are pleased to submit herewith half yearly compliance status report (i.e. for the period of **(April'2020 to September'2020)** of Environmental Clearance No. J-11015/6/2000-IA-II (M) dated 20.06.2002 granted by MoEF to ***Sugala Limestone Mines*** of Ambuja Cements Ltd., located at village – Sugala & Jagatiya, Taluka - Kodinar, District – Gir Somnath (Gujarat).

Thanking you,

Yours Faithfully,  
For **Ambuja Cements Ltd.**

  
**Anand Prakash**  
Head-Environment

Encl.: As above.

Copy to:

- 1) **The Central Pollution Control Board (CPCB)**, Parivesh Bhawan, Atmajyoti Ashram Rd, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara – 390023 (Gujarat)
- 2) **The Member Secretary, Gujarat Pollution Control Board (GPCB)**, Paryavaran Bhavan, Sector-10-A, Gandhinagar-382010
- 3) **The Regional Officer, Gujarat Pollution Control Board (GPCB)**, Opp. Saint Anne's Church Station Road, Junagadh.



# MONITORING THE IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS

Ministry of Environment & Forests, Regional Office (W), Bhopal

## Monitoring Report, Part-I

### DATA SHEET

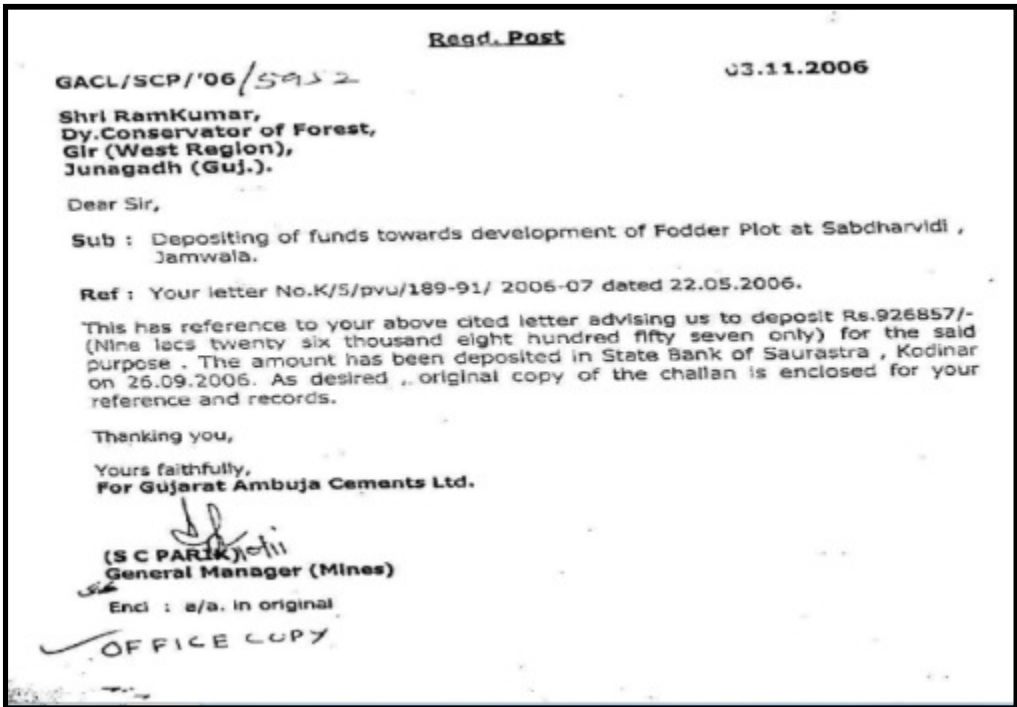
01	Project type	Mining
02	Name of the project	Sugala Limestone Mining Project
03	Clearance letter(s) / OM no. and date	J-11015/6/2000 – IA,II (M), dated 20.06.2002
04	Location	
	a) District(s)	Gir Somnath
	b) State(s)	Gujarat
	c) Latitude	20° 52' 45" – 20° 54' 45"
	d) Longitude	70° 45' 30" – 70° 46' 45"
05	Address for correspondence	
	a) Address of concerned Project Chief Engineer (with pin code & telephone / telex / fax numbers).	Sh. Anupam Agrawal Unit Head Ambuja Cements Ltd. PO Ambujanagar, Taluka : Kodinar, District: Gir Somnath (Gujarat). <b>Pin. : 362715 ,</b> <b>Tel: 02795-237011 , Fax: 02795 - 220328/232032</b>
	b) Address of Executive Project Engineer / Manager (with pincode / fax numbers.	Sh. Ganpat RAM, Manager ( Mines ), Ambuja Cements Ltd PO :Ambujanagar , Taluka - Kodinar District : Gir Somnath (Gujarat) Pin. : 362715 <b>Tel: 02795-237217, Fax: 02795 - 220328/232032</b>
06	Salient features	
	a) Present Status of the project	Ambuja Cements Ltd. has cement manufacturing plant at Ambujanagar in Kodinar Taluka of Gir Somnath District. Limestone is the main raw material for the cement plants. The materials are being exploited from company's own captive mines i.e. Sugala Limestone Mine. Sugala is located at a distance of about 18 kms in NNE direction with respect to cement plant. The rated capacity of the limestone is 1.29 MTPA.
	b) of the environmental management plans	<ul style="list-style-type: none"> <li>* Mining operations do not involve drilling and blasting for material rising. Limestone excavation being carried out by Surface Miner &amp; Ripper Dozer</li> <li>* Regular monitoring of environmental parameters is carried out as per the norms evolved by MoEF and IBM.</li> <li>* Preventive maintenance of deployed HEMM being undertaken on regular basis.</li> <li>* Dust suppression by water sprinkling on haul roads and in working area.</li> <li>* Afforestation / Green belt development along haul road near office building and lease periphery is being implemented.</li> <li>* Mined-out areas would be converted to plantation / agri-farm and water reservoirs as envisaged in the mining plan partial reclaiming already done.</li> <li>* Socio-economic improvement measures are being undertaken in the project buffer zone as envisaged.</li> </ul>
07	Break up of the project area.	
	a) Submergence area( forest & non-forest )	Not Applicable
	b) Others	Private Land - 414.8493 ha , Govt. Land - 2.5091 ha



08	Break up of the project affected population with enumeration of those losing houses / dwelling units only, agricultural land only, both dwelling units & agricultural land & landless labourers / artisans.	Not Applicable, since there is no human settlement in the core zone area,
	a) SC, ST / Adivasis	Not Applicable
	b) Others	Not Applicable
09	Financial details	
	a) Project cost as originally planned and subsequent revised estimates and the year of price reference.	Limestones raised from Sugala area partially supplement the requirements of existing cement units. As it is a captive mine for the existing cement plants, no separate project costing was made.
	b) Allocation made for environmental management plans with item wise and year wise break-up.	Rs. 9.77 Cr.
	c) Benefit cost ratio / Internal rate of return and the year of assessment.	No separate assessment made, as it is a captive mine.
	d) Whether (c) includes the cost of environmental management as shown in the above.	Not Applicable.
	e) Actual expenditure incurred on the project so far.	Rs. 7.87 Crores.
	f) Actual expenditure incurred on the environmental management plans so far.	Actual expenditure incurred on the environmental management plans so far is Rs. 8.68 Cr.
10	Forest land requirement.	
	a) The status of approval for diversion of forest land for non-forestry use	The project area does not comprise of any forest land hence not applicable.
	b) The status of clearing felling	Not Applicable
	c) The status of compensatory afforestation, if any	Not Applicable
	d) Comments on the viability & sustainability of compensatory afforestation programme in the light of actual field experience so far.	Not Applicable
11	The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information.	The project does not involve clear felling of trees.
12	Status of construction.	
	a) Date of commencement (Actual and / or planned)	2 <sup>nd</sup> November 2002
	b) Date of completion (Actual and / or planned).	Ongoing Project
13	Reasons for the delay if the project is yet to start.	Not applicable.
14	Dates of site visits	
	a) The dates on which the project was monitored by the Regional Office on previous occasions, if any.	1.) 12.10.10 to 13.10.10 by Dr. A. Mehrotra MoEFCC Regional Office, Bhopal 2.) 29/03/2019 by Dr. H.V.C Chary Guntupalli, Regional Director Bhopal
	b) Date of site visit for this monitoring report	1.) 17.08.2016 2.) 29/03/2019
15	Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits).	Half yearly compliance status report is being regularly submitted and last submission was on <b>12.05.2020 vide letter No. ACL/EMD/F-16/2020/2111/87302</b>

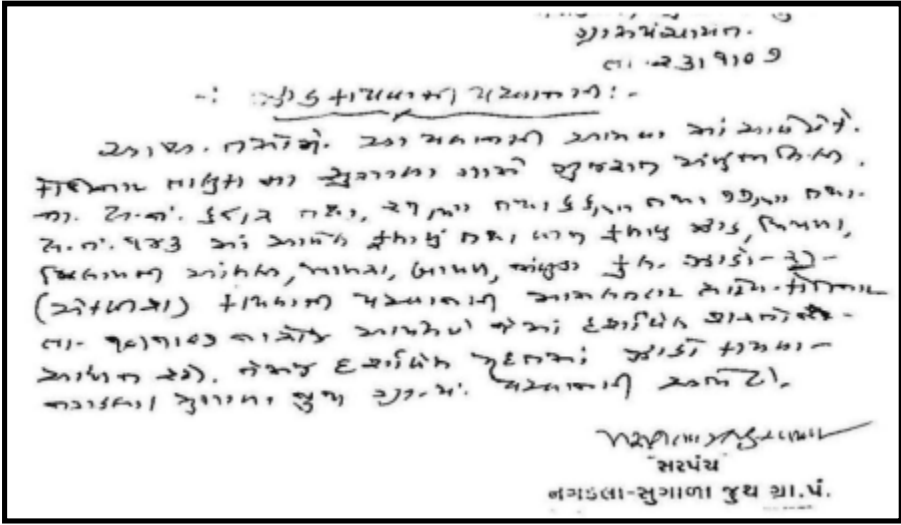



**Compliance Status of Environment Clearance issued to Sugala Limestone Mines  
vide MoEF Letter No : J-11015/6/2000-IA, II (M) dated 20<sup>th</sup> June, 2002**

S.N o.	Condition	Compliance Status	Details
<b>A. Specific Conditions</b>			
i	Mining activities including transportation of material from the mine site should be carried out only during day time (6 a.m. to 6 p.m.)	Complied	<ul style="list-style-type: none"> <li>Mining activities including transportation of material from the mine site is being carried out only during day time (6 a.m. to 6 p.m.). No mining is being done after 6 p.m.</li> </ul>
ii	Company should contribute for development of fodder plots in the nearby reserve forests areas.	Complied	<p>We have developed 9.0 hectares of fodder plot at Sabdharvidi, Jamvala jointly with Forest Department. The fund was allotted in two stages: In first stage, fund of Nine Lakhs Twenty Six Thousand Eight Hundred and Fifty Seven thousand (926857/-) was released vide our letter No. GACL/SEP/06/5952 dated 03/11/2006. In second Stage, fund of Twelve Lakhs Ninety Nine Thousand Eight Hundred Thirty Nine (1299839/-) was released vide our letter No. GACL/GEO/TRR/05 Dated 15/02/2005. Details of fodder plot developed has been already submitted to MoEF vide our submission <b>dated 25.12.2010 vide letter no. ACL/EMD/F-16/2010/55926.</b></p>
			
iii	Prior permission from the Forest Department / concerned authorities should be taken for cutting of trees for any mining activity in the lease area.	Complied	<ul style="list-style-type: none"> <li>No tree has been cut for any mining activity till date. Although permission has been obtained from Mamlatdar, Kodinar for cutting of trees in mine lease area. Copy of permission granted by Mamlatdarhas been already submitted to MoEF vide our submission <b>dated 25.12.2010 vide letter no. ACL/EMD/F-16/2010 /55926.</b></li> </ul>



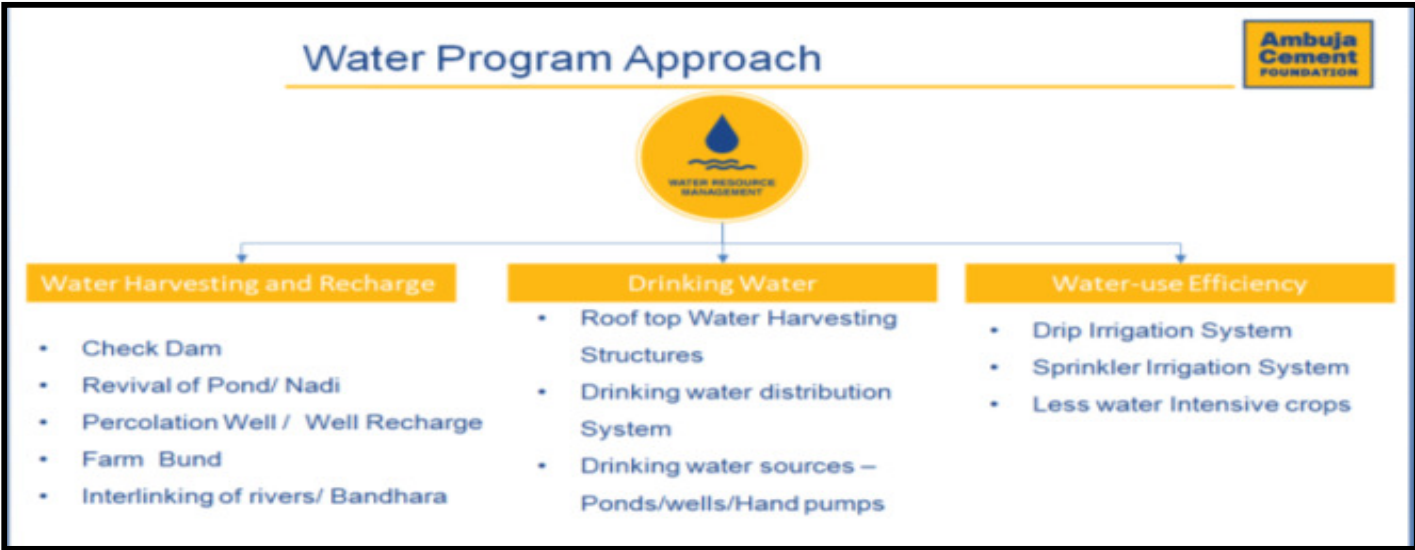


**Compliance Status of Environment Clearance issued to Sugala Limestone Mines  
vide MoEF Letter No : J-11015/6/2000-IA, II (M) dated 20<sup>th</sup> June, 2002**

		
iv	<p>A 250 m wide corridor along the nearest bank of singoda river should be kept undisturbed.</p>	<p>Complied</p> <p>Corridor along the nearest bank of Singoda River has been kept undisturbed. Surface plan is attached as under showing 250 m wide corridor is kept undisturbed.</p>
		
v	<p>Fencing (other than barbed wire) all around the lease area should be provided.</p>	<p>Complied&amp; ongoing process as the mining faces advance</p> <ul style="list-style-type: none"> <li>Fencing is provided at most of the places along the lease boundary; however certain area where surface right is under progress.</li> <li>Peripheral fencing of bella stone is provided along the excavated area. Total 8474.0 meters of brick wall, 31343.5 meters of barbed wire and Earthen Bunds 29752 meters fencing have been done.</li> </ul>



**Compliance Status of Environment Clearance issued to Sugala Limestone Mines  
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	<div>Bella Stone Wall Fencing</div>	<div>Barbed Wire Fencing</div>
vi (a)	In the eventuality of any drought in the area, the project authorities should take prior approval of the Central Ground Water Authority for dewatering the mine and Ministry of Environment & Forest should be kept informed.	<p>Noted and Complied as there has been no drought in the area till date</p> <ul style="list-style-type: none"> <li>So far there has been no drought condition, however in future, in case of any Drought condition; we will take prior permission as advised. In case of any drought conditions prevailing in future, we will take necessary approval from Central Ground Water Authority for dewatering the mine and will also inform the same to Ministry of Environment &amp; Forest.</li> </ul>
vi (b)	In case of depletion of water in the wells of nearby villages, the project authorities should provide water supply free of cost to the villagers.	<p>There is no depletion of water in surrounding area wells</p> <ul style="list-style-type: none"> <li>➤ We have done several measures under water resource management through our Ambuja Cement Foundation; which has help to improve the water regime of the area. This has increased water level of all the nearby wells in and around mining lease. In case of depletion of water in the wells of nearby villages, we will supply water on free of cost basis.</li> </ul>
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- |     |   |  |  |
|-----|---|--|--|
| vii | Construction of check dam(s) in the shingoda river and also release of mine water discharge should be undertaken with prior approval of Chief Wild Life Warden (CWLW), Government of Gujarat to ensure undisturbed movement of lions through the Shingoda river bed, which is an established migratory route for lions and other animals. | <ul style="list-style-type: none"> <li>➤ Complied related to construction of check dams (06 Nos.).</li> <li>➤ No mine water discharge .</li> <li>➤ CWCL permission obtained</li> </ul> | <ul style="list-style-type: none"> <li>• Mines is Zero Water discharge.</li> <li>• In addition rain water is being stored in mined out pit area developed as a water reservoir. So far we have constructed 06 nos. of Check dams on river Shingoda and 01 no. of tidal regulator at Muldwarka. All the check dams constructed on Shingoda River are located in downstream area from mine lease boundary on Shingoda River. All the check dams have been constructed under partnership with Govt. of Gujarat. Permission granted by Govt. of Gujarat, has been already submitted to MoEF vide our submission on 25.12.2010 vide letter no. ACL/EMD/F-16/2010/55926. List of Check dams constructed are enclosed as under :</li> </ul> |
|-----|---|--|--|

**Details of Check dams across Shingoda River:**

Sr. No.	Name of Village	Type of Structure	Year of Construction	Total Cost Rs. In Lacs	Storage Capacity in MCFT
1	Ronaj	Construction of Check dam	2002	35.17	6.31
2	Dudana ( Fruit Nursery )	Check dam height raising	2001	7.1	3.51
3	Chhachhar	Construction of Check dam	2004	12.06	6.2
4	Dudana	Construction of Check dam	2004	47.62	5.25
5	Kodinar ( Kubeshwar )	Construction of Check dam	2004	23.1	4.17
6	Muldwarka	Construction of Tidal Regulator	2009	79.58	57.64
7	Ronaj (Bhekheshwar Dam)	Dam, Under construction	Start in 2009	840	35.0





**Compliance Status of Environment Clearance issued to Sugala Limestone Mines  
vide MoEF Letter No : J-11015/6/2000-IA, II (M) dated 20<sup>th</sup> June, 2002**

Viii	Top soil should be properly stacked at earmarked dump site(s) with adequate measures and should be used for reclamation and rehabilitation of mined out areas.	Complied	<ul style="list-style-type: none"> <li>All the mining activities in said period are restricted within already broken area and top soil as and when removed is directly being utilized for reclamation and rehabilitation of mined out area.</li> <li>So far <b>36.9325 ha</b> area has been reclaimed and rehabilitated and this will be ongoing process.</li> </ul>
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S. No.	Year	Excavated Area (in Ha)	Reclamation Work (In Ha)	
			Agri Farm	Water Reservoir
1	2002 - 03	10	0	0
2	2003 - 04	28.4	0	0
3	2004 - 05	4.1	0	0
4	2005 - 06	13.82	0	0
5	2006 - 07	6.93	0	0
6	2007 - 08	2.97	1	0
7	2008 - 09	11.06	1.27	0
8	2009 - 10	14.28	2.79	0
9	2010 - 11	4.0616	7.0261	0
10	2011 - 12	19.5677	1.4245	0
11	2012 - 13	11.6447	3.095	0
12	2013 - 14	7.6909	3.3944	0
13	2014 - 15	7.8389	5.9361	0
14	2015 - 16	15.1005	2.2633	0
15	2016 - 17	9.8151	3.1481	13.0982
16	2017 - 18	13.6487	1.4129	0
17	2018 - 19	8.3415	0.1148	0
18	2019-20	1.2101	4.0573	0
Total		190.4797	36.9325	13.0982



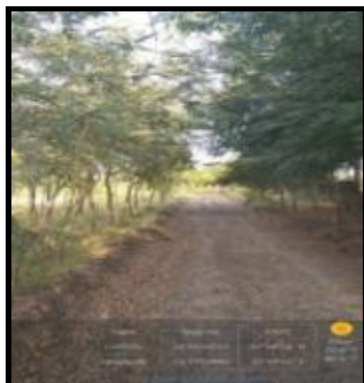
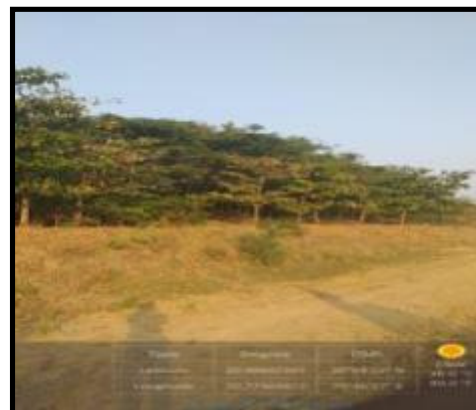
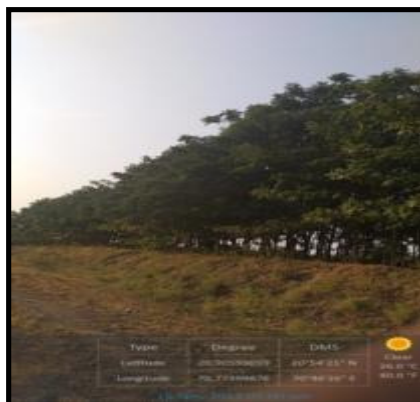
ix	Catch dams and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows soil and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained. Garland drain (Size, gradient & length ) and sump capacity should be designed keeping 50 % safety margin over and above the peak sudden rainfall 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.	<p>It is not applicable in our case as we don't have any waste dump.</p> <p>Complied</p>	<ul style="list-style-type: none"> <li>Since the deposit is outcropped hence there is no over burden and interbands from where waste is being generated. Therefore this clause is not applicable in our case.</li> </ul>
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**Compliance Status of Environment Clearance issued to Sugala Limestone Mines  
vide MoEF Letter No : J-11015/6/2000-IA, II (M) dated 20<sup>th</sup> June, 2002**


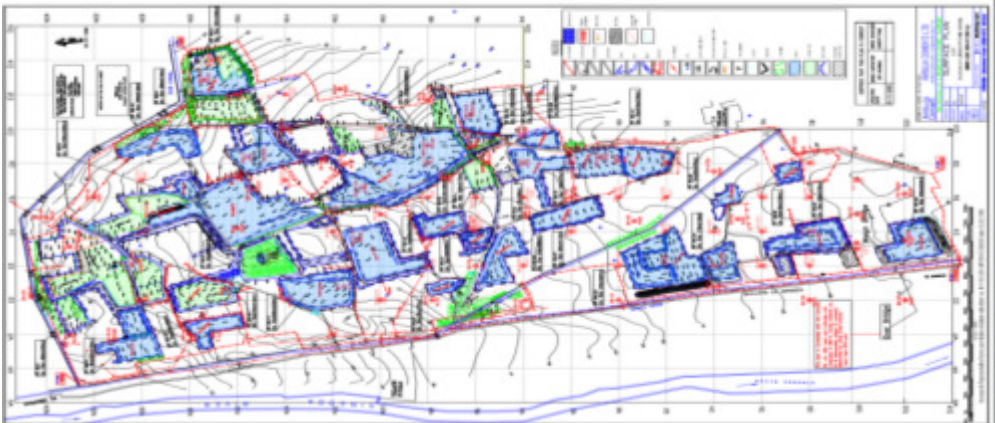
X	A green belt of adequate width all around the ML area should be developed by planting the native plant species in consultation with local DFO/ Agriculture Department. At least 2000 plant species / ha. Should be planted. Plantation should also be raised along the roads, canal, dump sites etc.	<ul style="list-style-type: none"> <li>Complied and ongoing process</li> </ul>	<ul style="list-style-type: none"> <li>We have developed green belt along lease boundary and maintaining the density 2000 sapling per hectare with native type of species, with consultation of local DFO.</li> <li>We are in the process of obtaining surface right of remaining lease boundary area to develop further green belt.</li> <li>Saplings are being provided by local forest department for plantation. Invoice of the same is attached as under :</li> </ul> <div data-bbox="829 470 1474 957" data-label="Image"> </div>
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Interactions are being carried out with Agriculture University, Forest department & KVK for plantation/afforestation. Even forest dept. is using sapling from our nursery for tree plantation. Details of mines reclamation and plantation are enclosed as under : **SUGALA MINES Greenbelt & Plantation Details**





**Compliance Status of Environment Clearance issued to Sugala Limestone Mines  
vide MoEF Letter No : J-11015/6/2000-IA, II (M) dated 20<sup>th</sup> June, 2002**

		
xi	<p>The North block of the mine should be fully converted to agricultural farms; the middle block should also be converted to agricultural farms/orchards and partly for water harvesting. Southern block of the mine should be converted to reservoir for water storage. Efforts should be made to backfill the worked out areas concurrently to the extent possible.</p>	<p>Complied and ongoing process</p> <ul style="list-style-type: none"> <li>Area of <b>36.9325 Ha</b> has been developed as pasture land in Consultation with Krishi Vigyan Kendra ( KVK), Gir Somnath as shown in Surface Plan attached as under :</li> </ul> 
xii	<p>A detailed mine decommissioning plan should be submitted to the Ministry of Environment &amp; Forests 5 years in advance for approval.</p>	<p>Will be compiled at the time of decommissioning of mine</p> <ul style="list-style-type: none"> <li>Point noted and will be compiled at the time of mine closure. We will submit detailed mine decommissioning plan to the Ministry of Environment, Forest &amp; Climate Change &amp; <b>IBM 5 years in advance for approval. As our mining lease is valid up to 01.09.2052.</b></li> </ul>
xiii	<p>Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring should be done four times a year – pre-monsoon (April/May), monsoon (August), post-monsoon (November), and winter (January). Data thus</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>Complied. Water quality testing is carried out with the help of MoEF&amp;CC certified third party laboratory on Quarterly basis. Water levels are being recorded in 13 open wells of buffer zone and 2 piezometers are constructed in mines area core zone.</li> <li><b>Data collected is being communicated regularly to CGWA, New Delhi, MoEF&amp;CC Regional office (SEZ) Bhopal, CGWB Regional Director Gandhinagar .</b></li> <li>Ground water level &amp; Analysis monitoring is being done regularly by establishing a network of ground water monitoring stations. Report is submitted to MoEF&amp;CC</li> </ul>



**Compliance Status of Environment Clearance issued to Sugala Limestone Mines  
vide MoEF Letter No : J-11015/6/2000-IA, II (M) dated 20<sup>th</sup> June, 2002**

collected should be sent at regular intervals to MoEF & the Central Ground Water Authority.		regional office Bhopal, CGWB , CGWA and GPCB on yearly basis. Last submitted on 18.06.2020 vide letter no ACL/EMD/F-9/2020/2149/87414.
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974414  
Ambuja Cement

ACL/EMD/F-9/2020/2149

18.06.2020

The Regional Director,  
Central Ground Water Board,  
West Central Region, Eastern Regional Building,  
Bhubaneswar, Odisha, Pin - 751002

Subject: Regarding submission of Ground Water level & quality monitoring Report of Sugala Limestone Mines.

Reference No: 1. EC-J-11015/6/2000-IA II (M) dated 20.02.2002  
2. MOEF Circular No. 25-23/CGWB/CAP/2019 dated 01.02.2019

Dear Sir,

This is with reference to EC granted by your good office vide letter No. J-11015/6/2000-IA II (M) to our Sugala Limestone Mines Project of M/s Ambuja Cement Limited, located at village Sugala & Jagatiya, Taluka - Kodinar, District Gir-Somnath, Gujarat.

As per the Specific condition No. XIV of the said EC and also the MOEF Circular No. 25-23/CGWB/CAP/2019 dated 01.02.2019, we are pleased to submit Ground Water Level & Quality Monitoring Report for the year 2019 - 2020 of pre-monsoon (April/May), monsoon (August), post-monsoon (November), and winter (January).

Kindly acknowledge the receipt of the same.

Thanking You,

Yours Faithfully,  
For Ambuja Cement Limited

S. Ramani  
MD (QA & QC)

Encl: As above

CC: 1. Ministry of Environment, Forest and Climate Change, 3rd Floor,  
Prithvi Wing Indira Paryayaran Bhawan, Jor Bagh, New Delhi-110003

Regd. Office: Ambuja Cement Limited  
Plot No. 10, Sector 10, Gurgaon, Haryana-122002  
Phone: 01294-500000, 500001  
Fax: 01294-500002, 500003

Regional Office: Bhopal  
Plot No. 10, Sector 10, Gurgaon, Haryana-122002  
Phone: 01294-500000, 500001  
Fax: 01294-500002, 500003

January"-2020			Ground Water Quality Report and Water Level of Sugala Limestone Mines									
S.N.	Ref.No.	IS 10500:2012 (S.R)		Well Water								Piezometers
		Desirable	Permissible									
Source				W2	W3	W5	W6	W7	W9	W10	W11	PIEZO NO-2
Village				SUGALA	SUGALA	SUGALA	SUGALA	SUGALA	SUGALA	SUGALA	SUGALA	SUGALA
Taluka				KODINAR	KODINAR	KODINAR	KODINAR	KODINAR	KODINAR	KODINAR	KODINAR	KODINAR
District				GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH
1 Color Hazen Units	5	15		P.Nil	P.Nil	P.Nil	P.Nil	P.Nil	P.Nil	P.Nil	P.Nil	P.Nil
2 Odour	Agreeable	Agreeable		Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3 Turbidity NTU	1	5		3.67	2.38	1.82	1.69	1.73	3.7	1.20	1.76	0.24
4 Dissolved Solids mg/l	500	2000		666	684	572	602	680	622	526	606	404
5 Conductivity - us/cm	--	--		1025	1068	884	941	1069	972	822	947	631
6 pH	6.5 to 8.5	No Relaxation		7.62	7.55	7.68	7.66	7.57	7.62	7.52	7.46	7.56
7 Total Hardness (as CaCO3) mg/l	200	600		448	416	388	412	424	412	364	412	204
8 Calcium (as Ca) mg/l	75	200		90	83	78	82	85	82	73	82	41
9 Magnesium (as Mg) mg/l	30	100		54	51	47	50	51	50	45	50	25
10 Chlorides (as Cl) mg/l	250	1000		72	96	64	94	88	64	48	64	48
11 Sulphates (as SO4) mg/l	200	400		72	67	63	66	68	66	59	66	33
12 Nitrates (as NO3) mg/l	45	No Relaxation		5.1	34.2	3.2	5.7	34.1	25.2	8.5	10.2	4.18
13 Fluorides (as F) mg/l	1	1.5		0.42	1.04	1.56	1.47	1.23	1.59	1.22	0.95	0.26
14 Alkalinity (as CaCO3) mg/l	200	600		296	320	276	280	284	296	240	288	272
Water Level (in meter)				10.2	10.7	10.9	6.7	6.2	10.8	8.4	5.5	14.2
Opinion for potability is given considering above 13 Test Parameters only.												

xiv Digital processing of the entire lease area using remote sensing technique should be carried out regularly once in three years for monitoring land use pattern and physiographic of the area and report submitted to the Ministry and its Regional Office at Bhopal.

Complied

We carry out digital processing of the entire lease area once in every three year. Year 2019 report has been submitted to MoEFCC, New Delhi and it's Regional Office Bhopal vide letter No. ACL/EMD/F-9/2020/2092 dtd. 02.03.2020.

974414  
Ambuja Cement

ACL/EMD/F-9/2020/2092

Dtd. : 02.03.2020

The Director (s),  
Ministry of Environment, Forest and Climate Change (MoEFCC),  
Regional Office, Western Region,  
"Kendriya Paryayaran Bhawan"  
Link Road No.3, Ravi Shankar Nagar,  
Bhopal (M.P.) 462010,

Subject: Digital processing report of land use pattern & physiography of the entire lease area using remote sensing technique for our Sugala Limestone Mines

Reference No : EC - J-11015/6/2000-IA II (M) dated 20.02.2002

Dear Sir,

This is with reference to EC granted by your good office vide letter No. - J-11015/6/2000-IA II (M) dated 20.02.2002 to our Sugala Limestone Mines Project of M/s Ambuja Cement Limited, located at village Sugala & Jagatiya, Taluka - Kodinar, District Gir-Somnath, Gujarat.

As per the Specific condition No. XIV of the Environment Clearance: we are pleased to submit digital processing report of land use pattern & physiography of the entire lease area using remote sensing technique conducted in October 2019 as Annexure - I.

This is for your kind information and record please.

Thanking You,

Yours Faithfully,  
For Ambuja Cement Limited

Head-Environment

Encl: As above

CC: Ministry of Environment, Forest and Climate Change, 3rd Floor,  
Prithvi Wing Indira Paryayaran Bhawan, Jor Bagh, New Delhi-110003

Regd. Office: Ambuja Cement Limited  
Plot No. 10, Sector 10, Gurgaon, Haryana-122002  
Phone: 01294-500000, 500001  
Fax: 01294-500002, 500003

Regional Office: Bhopal  
Plot No. 10, Sector 10, Gurgaon, Haryana-122002  
Phone: 01294-500000, 500001  
Fax: 01294-500002, 500003



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xv	Vehicular emissions should be kept under control and regularly monitored.	Complied	<ul style="list-style-type: none"> <li>Vehicular emissions are being checked &amp; monitored regularly. Detail of P.U.C certificate by Omkar driving school &amp; P.U.C center (Approved by Government of Gujarat) is attached as under :</li> </ul>
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S.No	Machinery	Nos. (in use)
<b>Heavy Earth Moving Machinery</b>		
a)	Volvo Loader (4.6 m3)	01
b)	TATA tipper (3118 TC)	25
c)	Surface Miner – SM 2200	01
d)	Ripper Dozer D275A KOMATSU	01
e)	L580 Liebherr Loader	01
f)	Surface Miner – SM 2100	01
g)	Mahindra – 3118 TC	25

**B. General Conditions**

i	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	Complied	<ul style="list-style-type: none"> <li>There is no change in mining technology and scope of working.</li> </ul>
ii	No change in the calendar plan including excavation, quantum limestone and marl, waste / OB dumps should be made.	Complied	<ul style="list-style-type: none"> <li>There is no change in the calendar plan. As per approval from MoEF&amp;CC ; we have annual mining capacity of 1.29 MTPA</li> <li>Also the past year wise actual production v/s sanctioned capacity is enclosed herewith.</li> </ul>

<b>Limestone Production Details</b>				
S. No.	Year	EC Sanctioned Capacity (TPA)	Actual Limestone Production (TPA)	Actual Marl Production (TPA)
1	2002 - 03	1040000	73251	0
2	2003 - 04	1040000	1039953	0
3	2004 - 05	1040000	1039818	0
4	2005 - 06	1040000	1039777	0
5	2006 - 07	1040000	1039881	0
6	2007 - 08	1290000	1289499	0
7	2008 - 09	1290000	1281161	0
8	2009 - 10	1290000	1289843	0
9	2010 - 11	1290000	1277822	0
10	2011 - 12	1290000	1231742	0
11	2012 - 13	1290000	1257075	0
12	2013 - 14	1290000	1218109	0
13	2014 - 15	1290000	1281714	0
14	2015 - 16	1290000	1289577	0
15	2016 - 17	1290000	1288637	0
16	2017 - 18	1290000	1245886	0
17	2018 - 19	1290000	1277707	0
18	2019 - 20	1290000	12780391	0
19	2020 - 21 (Till September)	1290000	573792	0

iii	Five ambient air quality monitoring stations should be established in the core zone as well as buffer zone for SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> and CO monitoring. Location of the ambient air quality stations should be decided on the meteorological	Complied	<ul style="list-style-type: none"> <li><b>Five ambient air quality monitoring stations have been established in core &amp; buffer zone.</b> Ambient air quality monitoring of core zone and buffer zone is being done every month. Monitoring reports are submitted on monthly basis. To Regional Office, Junagadh of Gujarat State Pollution Control Board.</li> </ul>
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	data, topographical features and environmentally and ecologically sensitive targets in consultations with the State Pollution Control Board.		<ul style="list-style-type: none"> <li>The location of the monitoring stations is finalized in consultation with GPCB and renowned consultant Sh. B Padmanabh Murthy, Professor of JNU and former Director of IMD Met-Dept</li> <li>Ambient air quality monitoring results for the period <b>April'2020 to Sep'2020</b> is enclosed as under.</li> </ul>
iv	Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office at Bhopal and the State Pollution control Board/ Central Pollution Control Board once in six months.	Complied	<ul style="list-style-type: none"> <li>Half yearly <b>ambient air quality monitoring report is being regularly submitted to MoEF&amp;CC</b>, our last submission was on <b>12.05.2020 vide letter no. ACL/EMD/F-16/2020/2111/87302</b> Ambient air quality monitoring results for the period <b>April'2020 to September'2020</b> is enclosed as under.</li> </ul>

<b>Ambient Air Quality Monitoring Results (April'2020 to September'2020 )</b>															
Month	Working Place					Sugala Village					Jagatiya Village				
	PM2.5	PM10	SO2	NOx	CO	PM2.5	PM10	SO2	NOx	CO	PM2.5	PM10	SO2	NOx	CO
Unit >	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)
Apr-20	Due to COVID-19 Lockdown, Monitoring not conducted														
May-20	32.20	55.30	12.50	16.80	BDL	25.50	48.87	9.80	12.20	BDL	26.30	44.30	10.20	13.50	BDL
	30.50	56.30	13.10	17.30	BDL	26.50	47.30	10.20	13.30	BDL	27.30	45.50	9.90	14.20	BDL
Jun-20	34.27	52.37	11.30	15.50	BDL	28.26	50.23	10.40	13.30	BDL	25.37	42.37	11.20	12.39	BDL
	28.65	41.25	12.80	17.30	BDL	20.59	40.18	12.00	12.90	BDL	22.56	38.59	10.80	13.85	BDL
Jul-20	29.65	50.26	10.50	14.70	BDL	28.49	49.68	11.30	15.30	BDL	26.59	47.51	12.10	14.28	BDL
	22.64	39.42	11.70	15.50	BDL	23.45	38.65	12.70	14.90	BDL	20.48	40.74	11.80	15.20	BDL
Aug-20	22.68	41.25	12.00	13.50	BDL	25.12	40.85	10.50	14.10	BDL	23.45	38.26	11.40	13.62	BDL
	25.60	36.80	10.60	14.60	BDL	21.80	37.20	11.60	13.20	BDL	22.60	39.20	12.60	14.30	BDL
Sep-20	24.56	43.49	11.90	14.80	BDL	28.59	39.58	11.60	15.20	BDL	25.56	44.26	10.90	14.26	BDL
	27.60	39.60	11.20	15.50	BDL	22.60	36.20	12.20	14.60	BDL	25.20	40.20	11.80	13.90	BDL
Month	Chhachhar Village					Nagadala Village					Kansariya Village				
	PM2.5	PM10	SO2	NOx	CO	PM2.5	PM10	SO2	NOx	CO	PM 2.5	PM 10	SO2	NOx	CO
Unit >	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)
Apr-20	Due to COVID-19 Lockdown, Monitoring not conducted														
May-20	25.50	45.50	9.90	11.50	BDL	24.40	42.50	9.50	12.50	BDL	26.30	46.30	10.20	13.30	BDL
	24.40	44.20	9.80	12.20	BDL	23.30	43.30	9.20	13.30	BDL	25.50	45.50	10.50	14.40	BDL
Jun-20	24.39	43.29	10.30	10.30	BDL	22.19	40.28	10.20	11.30	BDL	25.37	48.26	11.40	15.48	BDL
	23.48	40.58	11.70	14.90	BDL	21.59	37.48	10.80	13.00	BDL	25.97	39.68	12.70	13.68	BDL
Jul-20	25.46	46.32	13.30	12.00	BDL	23.69	51.25	11.70	13.30	BDL	24.89	49.65	12.10	14.06	BDL
	25.63	42.69	12.90	15.40	BDL	23.85	39.46	11.70	14.70	BDL	22.96	36.48	11.40	14.20	BDL
Aug-20	22.89	37.25	12.30	14.50	BDL	21.04	39.41	10.40	15.00	BDL	22.96	41.96	11.40	13.48	BDL
	23.60	38.20	11.60	13.60	BDL	20.85	36.40	12.80	15.60	BDL	24.60	37.90	12.30	15.40	BDL
Sep-20	21.59	39.59	11.10	15.30	BDL	19.89	42.57	12.20	15.80	BDL	22.71	40.99	10.90	14.42	BDL
	24.60	41.20	10.90	12.90	BDL	22.90	39.50	11.70	14.80	BDL	27.50	39.40	10.90	16.10	BDL

v	Adequate measures for control of fugitive emissions should be taken during drilling and blasting operations, loading and transportations of minerals etc.	Drilling and blasting is not applicable in our case. All other conditions complied	<ul style="list-style-type: none"> <li>Drilling and blasting is not applicable in our cases as we are using environment friendly Surface Miner machine. On all haul roads regular water sprinkling is being done by water tankers. Monitoring results of Air borne dust survey is enclosed below .All transportation vehicles are equipped with multi cap to transport material in covered condition</li> </ul>
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**Air Borne Dust Survey (April'2020 to September'2020 )**

Machine : Surface Miner				Machine : Dozer				Machine Loader			
Date	Period	Location	RSPM (mg/m3)	Date	Period	Location	RSPM (mg/m3)	Date	Period	Location	RSPM (mg/m3)
April'20				Due to COVID-19 Lockdown, Monitoring not conducted							
5-May-20	12:00-18:00	Inside Cabin	0.32	6-May-20	12:00-18:00	Inside Cabin	0.28	7-May-20	12:00-18:00	Inside Cabin	0.31
8-Jun-20	06:00-12:00		0.27	9-Jun-20	06:00-12:00		0.31	10-May-20	06:00-12:00		0.34
13-Jul-20	12:00-18:00		0.26	14-Jul-20	12:00-18:00		0.29	15-Jul-20	12:00-18:00		0.35
6-Aug-20	06:00-12:00		0.29	7-Aug-20	06:00-12:00		0.32	8-Aug-20	06:00-12:00		0.31
14-Sep-20	12:00-18:00		0.27	15-Sep-20	12:00-18:00		0.29	16-Sep-20	12:00-18:00		0.32

- |    |  |          |   |
|----|--|----------|---|
| vi | Adequate measures should be taken for control of noise levels below 85 dB (A) in the work environment. | Complied | <ul style="list-style-type: none"> <li>All the machines are emitting noise well below 85 dB(A). We have deployed loader from LIEBHERR Germany which is the lowest noise generating machine in the world. Result of Ambient noise monitoring as well as HEMM noise monitoring report is attached below:</li> </ul> |
|----|--|----------|---|

**Ambient Noise Level Monitoring (April'2020 to September'2020 )**




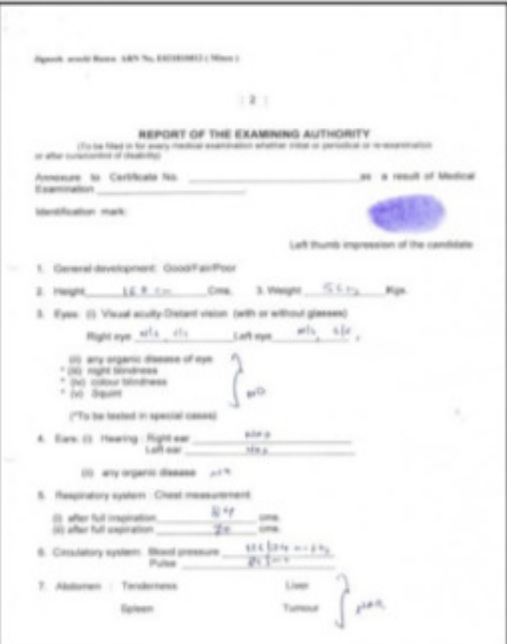
Month	Noise Levels in dB(A)									
	Near Surface Miner		Haul road		Mines Office		Sugala Village		Chidivav Village	
	Leq (Day)	Leq (Night)	Leq (Day)	Leq (Night)	Leq (Day)	Leq (Night)	Leq (Day)	Leq (Night)	Leq (Day)	Leq (Night)
Apr-20	Due to COVID-19 Lockdown, Monitoring not conducted									
May-20	67	64	66	63	63	54	47	44	49	43
Jun-20	69	63	65	63	64	55	56	46	50	44
Jul-20	67	64	65	64	64	60	59	46	52	46
Aug-20	73	66	64	61	66	60	60	49	53	47
Sep-20	70	67	66	60	65	61	63	52	54	46

**Noise Level of HEMM distance (April'2020 to September'2020 )**

Machine	Surface Miner			Loader			Dozer		
Month	Conditions	Noise Levels (dB) Leq		Conditions	Noise Levels (dB) Leq		Conditions	Noise Levels (dB) Leq	
		At 5m.	At 10m.		At 5m.	At 10m.		At 5m.	At 10m.
Apr-20	Due to COVID-19 Lockdown, Monitoring not conducted								
May-20	While dozing the material	73	68	While loading to tipper	70	69	While mining	73	68
Jun-20		72	58		74	69		69	63
Jul-20		70	67		73	70		73	70
Aug-20		75	73		74	71		73	71
Sep-20		75	70		73	70		73	71



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vii	<p>Personnel working in dusty areas should wear protective respiratory device and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contraction due to exposures of dust and corrective measures, if needed.</p>	Complied	<ul style="list-style-type: none"> <li>All personnel working in mines are provided with PPE's i.e. dust masks, safety shoes, safety goggle, Safety Reflective Jacket &amp; Helmet. Occupational health surveillance program of all the workers (Including Third party workmen) are being undertaken every year by our Occupational Health Centre through our AMH Ambuja Multi Hospital. There is no case of any contraction due to exposure of dust in any workmen.</li> <li>They are also provided adequate training and information on safety and health aspects.</li> </ul> 
			 
viii	<p>The fund earmarked for Environmental protection measures should be kept in separate account and not diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment &amp; Forests.</p>	Complied	<ul style="list-style-type: none"> <li>We have separate cost centre for environmental expanses and details of capital and recurring expenditure for environmental protection measures are attached below. Expenses incurred against Environment protection for <b>April 2020 to September 2020 is Rs. 42.28 Lakhs.</b></li> </ul>





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Expenditure incurred in Environment Management Plan - SUGALA			Ambuja Cement Foundation - Ambujanagar							
A. Capital Investment for Environmental Monitoring :			Details for programme wise expenditure for the year April 2020 to Sept 2020							
S. No	Particulars	Cost	Sr.No	Programme	ACF - ACL	*Funds received through Government	** Funds from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp. (Rs. In lakhs)
1	Monitoring Equipments	37.08								
2	Environment Laboratory	10								
3	Others (Monitoring Van, DG Sets etc.	10								
	Total (In Lacs INR)	57.08		GUJARAT - Kodinar						
			1	Water Resource Mangement & Drinking Water Projects						
				a. Water Resource Development	2.16	1.92	--	--	--	4.08
				B. Drinking Water Programme	0.82	1.63	--	--	130.52	132.97
			2	Agriculture Development( Farm Forestry & Afforestation)	4.83	3.65	--	35.53	49.01	93.02
			3	BCI	8.11	--	85.69	76.54	112.44	282.78
			4	Krishi Vigyan Kendra (KVK) Agriculture	0.66	1.81	--	--	--	58.47
			5	Health & Sanitation	3.10	--	--	2.95	--	6.05
				Ldication Programme	--	--	--	--	--	0.00
			6	Women / Youth Development	1.62	--	--	--	--	1.62
			7	Skill and Enterprunership Development Programme	25.68	8.50	--	5.86	--	40.04
			8	Integrated Community Development Programme	11.22	--	--	--	--	11.22
			9	Co-ordination & Administration Expenses	44.03	--	--	--	--	44.03
			10	Capital Expenditure		--	--	--	--	0.00
				TOTAL	102.23	73.51	85.69	120.88	291.97	674.28
B. Recurring Expenditure for the period of April 2020 to September 2020										
S. No	Particulars	Cost								
1	Green belt development & Dust suppression	14.44								
2	Manpower Cost *	25.42								
3	House Keeping	1.07								
4	Other Env. Protection (Environmental Monitoring)	1.14								
5	Environment Awareness *	0.20								
	Total (In Lacs INR)	42.28								
* Expenditures are Common for All the Plants & Mines.										

ix	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated Environmental safeguards. The project authority should send one set of EIA/ EMP report and mining plan to them and extend full co-operation to officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Complied and noted	<ul style="list-style-type: none"><li>Point noted. Full support and co-operation is being extended during the visit of officers from Ministry of Environment &amp; Forest, CPCB as well as GPCB.</li></ul>
x	The project authority should inform to the Regional Office located at Bhopal as well as to the Ministry of Environment & Forests regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Noted and will be complied as & when required.	<ul style="list-style-type: none"><li>Point noted. This is an existing and ongoing project.</li><li>This is a running mine and lease is valid till 01/09/2032 (extended till 01/09/2052) Once we will reach at final phase of mine closure we will intimate to inform to the Regional Office located at Bhopal as well as to the Ministry of Environment &amp; Forests</li></ul>
xi	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office , District Industry	Complied	<ul style="list-style-type: none"><li>GPCB &amp; District Industrial had complied the condition.</li></ul>
xii	The Project authorities should advertise at least in two Local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven 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 may also be seen at web site of the Ministry of Environment & Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> and a copy of this ministry at Bhopal.	Complied	<ul style="list-style-type: none"><li>Advertisement was published in two local news papers as attached below. Copy of advertisement has been submitted to MoEF&amp;CC on 25.12.2010 vide letter no. ACL/EMD/F16/2010/55926.</li></ul>



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3	The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Noted	<ul style="list-style-type: none"> <li>Point Noted and any further condition of Ministry and competent authority shall be complied for environment protection.</li> </ul>
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance.	Noted	<ul style="list-style-type: none"> <li>Point Noted. All the mentioned conditions are being complied.</li> </ul>
5	The above conditions will be enforced, inter alia, under the provisions of 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 along with their amendments and rules.	Complied	<ul style="list-style-type: none"> <li>All mentioned conditions under the provisions of the Water (Prevention &amp; Control of Pollution) Act 1974, the Air (Prevention &amp; Control of Pollution) Act 1981, the Environment (Protection) Act 1986, and the public Liability Insurance Act 1991 along with their amendments and rules are being complied.</li> </ul>

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