

# Ambuja Cement

Ref. ACH/EMD/F-13/11/2017

Dated: 30/11/2017

Director (S)  
Ministry of Environment , Forests &CC  
Pearson Road FRI Campus,  
Dehradun

**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 April – 2017 – September - 2017) 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)  
Sr. Manager - 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) CD of above all data.

COMPLIANCE OF STIPULATIONS BY THE H.P. STATE POLLUTION CONTROL BOARD FOR THE CEMENT PLANT AT DARLAGHAT AND RELATED MINING ACTIVITIES

Sr. No.	STIPULATIONS	IMPLEMENTATIONS
1	Validity of Consent	Consent to Operate was issued on 15/12/1995 and the same is updated/ renewed every year. The latest consent issued by the State Pollution Control Board is valid up to 31 <sup>st</sup> March 2018.
2	On line Stack Monitoring Equipment	On-line Stack Monitoring Equipment installed at GBH Stack. Five more online stack emission monitors have been installed at Clinker Cooler ESP, Cement Mill ESPs I,II & III Bag filter and Coal Mill Bag Filter sections.
3	<ul style="list-style-type: none"> <li>• Respirable Dust Monitors for Ambient Air Quality Monitoring</li> </ul>	Ambuja Cements Ltd. has procured 13 Nos. of Respirable Dust Samplers (Noiseless), thirteen nos. of PM 2.5 samplers and three – workplace dust monitoring equipment and all are in working conditions.
4 & 5	Monthly Report of Monitoring	Monthly report of monitoring for Ambient, Stacks, SWRP and Gyana Khud is submitted to H.P. State Pollution Control Board on regular basis.
6	<p>Emission limit for Stack – 100 mg/Nm<sup>3</sup></p> <p>Ambient Air Quality Limit: PM 10 limit -100 µg/m<sup>3</sup> PM 2.5 limit – 60 µg/m<sup>3</sup></p>	<p>Stack emissions are maintained well below the prescribed limit of 100 mg/Nm<sup>3</sup></p> <p>All the 10 AAQ Monitoring stations are monitored on regular basis and the monitored value is below statutory norms of 100 µg/m<sup>3</sup> for PM 10 and 60 µg/m<sup>3</sup> for PM 2.5.</p> <p>A part of this we are monitoring ambient air quality surrounding villages (five KM aerial distance of plant &amp; mines) and the monitored value is below statutory norms of 100 µg/m<sup>3</sup> for PM 10 and 60 µg/m<sup>3</sup> for PM 2.5.</p>
7	Treated Sewage Water Quality	Treated Sewage Water Quality meets the norms/limits prescribed by HP SPCB for pH, BOD, TSS. All the treated water is reused for greenery development, road spray and plant cooling make up.

Table - I

**Weekly Average of Stack Monitoring Results**

(FROM Apr. 2017 - Sep. 2017)

MONTHS	Average PM Value in mg./Nm <sup>3</sup>				
	Glass Bag House	Cooler ESP	Cement Mill ESP	Coal Mill B/F	Main Crusher B/F
<b>Apr-17</b>	10.4	28.5	6.4	11.3	26.1
	13.2	35.6	20.7	22.6	30.7
	21.5	42.9	20.9	39.6	23.0
	20.9	38.7	11.5	24.0	25.4
<b>May-17</b>	16.1	30.7	14.6	21.7	33.0
	13.6	27.6	20.1	28.9	29.3
	12.5	54.1	20.9	32.8	26.7
	20.9	51.8	10.4	24.0	16.2
<b>Jun-17</b>	13.9	45.6	13.1	27.9	26.8
	20.20	42.70	5.7	21.20	25.10
	25.20	44.40	13.2	16.90	31.40
	19.70	31.80	18.4	31.50	18.80
<b>Jul-17</b>	20.10	31.20	20.7	17.60	36.4
	21.10	30.10	20.9	28.50	48.2
	23.70	39.30	20.6	28.60	35.0
	21.4	31.8	21.0	27.4	38.4
<b>Aug-17</b>	27.1	31.0	21.0	12.6	25.4
	22.8	33.4	12.7	12.4	23.5
	21.4	34.0	19.5	4.9	31.7
	20.6	39.9	12.3	9.0	24.8
<b>Sep-17</b>	21.4	30.3	16.6	10.2	27.9
	20.5	26.5	18.2	14.5	28.4
	18.1	33.3	22.3	17.8	22.7
	*	*	15.8	*	*

Note: \* Out of Operation

Table - 2

**Inlet and Outlet Sewage Water Characteristics (Monthly Average)**  
(From April 2017 to Sep. 2017)

MONTHS	INLET			OUTLET		
	pH	BOD	TSS	pH	BOD	TSS
Apr-17	8.10	253.00	366.00	7.50	11.30	12.50
May-17	8.10	255.00	364.70	7.50	11.50	12.40
Jun-17	8.10	257.00	359.70	7.50	12.50	12.90
Jul-17	8.10	255.00	357.60	7.50	12.50	14.00
Aug-17	8.10	257.00	364.30	7.60	13.50	12.30
Sep-17	8.10	254.00	378.00	7.50	11.20	12.30

Except pH, all parameters are in mg/lit.

Table - 3

**TOTAL NOS. OF PLANTS PLANTED  
(FROM April. 2017 TO September 2017)**

Area of Plantation	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Total
Inside Plant Area	8	12	28	40	59	32	179
Around Plant Area	0	0	0	0	0	0	0
Within Colony Area	0	2	6	11	17	9	45
Inside Mines Area	22	18	14	1844	1361	582	3841
<b>Total</b>	<b>30</b>	<b>32</b>	<b>48</b>	<b>1895</b>	<b>1437</b>	<b>623</b>	<b>4065</b>

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

Table -5

**MONTHLY NOISE MONITORING RESULTS (INSIDE PLANT) AT AWBUJA CEMENTS LTD. - UNIT HIMACHAL**  
(From April 2017 to September 2017)

MONITORING LOCATION	Apr-17		May-17		Jun-17		Jul-17		Aug-17		Sep-17	
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
<b>TIME OFFICE</b>												
With Vehicular Movement	60.5	58.3	70.8	69.3	78.5	77	71.3	70	68.2	64.5	82.4	80.5
Without Vehicular Movement	57.3	56.1	64.1	57.5	61.2	57.8	57.6	54.1	57.8	53.9	79.7	76.3
Coal Crusher	69.6	63.9	87.4	70.3	64.5	60.9	64.7	61.4	70.5	66.3	63.5	61.3
GBH (Near MPSS)	77.1	75.3	75.1	74.9	81.4	80.7	82.4	80.9	69.1	64.7	82.1	80.7
Raw Mill	85	84.1	84.5	83.6	85.5	84.9	85.5	84.1	84.9	83.4	84.9	84.1
Cement Mill Area (Out Side)	71.9	70.3	80.9	78.7	84.3	82.1	84.3	82.4	76.1	73.8	84.3	82.3
In front of CCR	67.6	64.1	69.2	68.1	70.2	68.8	71.7	68.5	62.7	58.5	71.1	69.5
Inside Compressor House1 (Near MPSS)	86.9	84.7	86.6	80.8	86.1	85.3	88	87.3	78.3	75.1	84.7	83.8
Outside Compressor House1 (Near MPSS)	77.1	75.3	85.8	82.9	87.3	86.1	86.1	85.8	67.5	64.7	88.2	87.4
Inside Compressor House2 (Near Cement Mill)	85.2	83.9	87.3	86.7	83.5	82.9	89.8	86.4	86.9	84.2	85.5	84.1
Outside Compressor House2 (Near Cement Mill)	81.5	78.7	87.6	84.9	81.7	80.4	86.2	85.9	75.3	73.8	84.8	80.8
Blower House (Near Coal Mill)	87.1	86.3	82.2	79.7	80.2	79.6	83.5	82.9	87.6	85.1	85.3	84.2
Blower House (Below Blending Silo)	84.3	82.8	79.8	81.5	82.6	81.2	81.7	80.2	79.4	76.3	79.6	78.5
Blower House (Below Cement Silo 1)	78.9	76.1	87.3	86.8	80.1	79.5	80.1	81.4	75.1	72.5	83.2	81.9
Blower House (Below Cement Silo 2)	84.6	83.3	85.7	84.9	83.4	81.9	82.6	81.8	80.2	78.7	81.8	80.7
<b>MAIN GATE</b>												
With Vehicular Movement	80.2	78.5	70.6	68.1	76.2	74.8	75.8	71.5	81.5	77.9	84.1	81.4
Without Vehicular Movement	61.6	58.9	59.2	55.8	67.5	65.3	68.1	64.3	62.1	58.4	68.5	65.1

Noise Level Unit - dB(A)

Table - VI

**Environmental Expenditure – SULI (April, 2017 – September, 2017)**

Sr. No.	Environmental Expenditure Area	Capital/Recurring	Amount(Rs)
1	a) Sound Barriers/ Acoustics, road works, plant flooring, shed provision etc. b) Any other important environmental asset/ expenditure	Capital	1500000
2	Air pollution control equipments maintenance, STP maintenance, Analyzers and other monitoring equipments maintenance.	Recurring	4841374
3	Monitoring and analysis of environmental parameters, studies, purchase of small new equipments ,plantation, fees, salaries etc.	Recurring	5178378
4	Air pollution control equipments running expenses	Recurring	81601027
5	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.	Recurring	2950000
6	Depreciation on Environmental assets	Recurring	8356990
7	Community development works	Recurring	6885137
	<b>TOTAL</b>		<b>111312906</b>

**Eleven Crore Thirteen Lacs Twelve Thousand Nine Hundred Six Only.**

Table - 7

**AMBIENT AIR QUALITY IN SURROUNDING VILLAGES  
(FROM Apr. 2017 TO Sep. 2017)**

Date	Village	Concentration (ug/m <sup>3</sup> )	
		PM2.5	PM10
		IS-5182-p-23	IS-5182-p-23
08-04-2017	Chatera	11.6	48.4
15-04-2017	Gyana	18.2	52.9
22-04-2017	Badal	14.7	60.2
29-04-2017	Badog	12.9	56.7
06-05-2017	Kotla Numal	18.6	56.2
13-05-2017	Chamakdi	22.4	72.9
20-05-2017	Navgaon	20.3	62.5
27-05-2017	Naumi Nichli	16.1	58.4
03-06-2017	Badog	21.7	67.2
10-06-2017	Kakda	29.4	71.5
17-06-2017	Parnu	16.8	58.3
24-06-2017	Sangoee	20.6	62.4
08-07-2017	Saoug	22.6	68.5
15-07-2017	Chamla	32.1	75.9
22-07-2017	Sar	21.9	64.6
29-07-2017	Baga	26.8	70.3
05-08-2017	Dhundan	28.1	65.8
12-08-2017	Parnoo	18.4	58.7
19-08-2017	Banjan	23.2	67.5
26-08-2017	Gyana	28.5	69.4
09-09-2017	Samana	19.2	51.4
16-09-2017	Kanswala	28.7	64.9
23-09-2017	Chalyaun	29.1	57.6
30-09-2017	Dati	16.3	54.5



**Monthly Average of Gyana Khad Water Quality Analysis Report**  
(From April 2017 to Sep. 2017)

MONTH	SAMPLING POINTS	PARAMETERS			
		pH	TSS	TDS	DO
Apr-17	1	7.4	35.5	329.0	4.30
	2	7.6	45.8	371.1	3.70
	3	7.5	39.4	344.0	4.00
	4	7.5	35.1	336.0	4.10
May-17	1	7.5	34.3	337.1	3.90
	2	7.7	52.5	361.8	3.20
	3	7.6	45.7	350.2	3.60
	4	7.6	41.1	342.2	4.00
Jun-17	1	7.4	45.8	401.7	4.10
	2	7.7	59.7	434.1	3.60
	3	7.5	53.1	420.0	4.00
	4	7.5	47.7	412.0	4.20
Jul-17	1	7.4	40.7	364.4	4.00
	2	7.7	58.3	403.1	3.60
	3	7.5	51.2	390.6	4.00
	4	7.5	48.6	377.4	4.10
Aug-17	1	7.4	45.7	358.7	4.10
	2	7.6	58.2	386.6	3.70
	3	7.5	53.4	366.2	4.00
	4	7.4	47.4	359.6	4.20
Sep-17	1	7.5	37.1	341.4	4.10
	2	7.7	55.4	364.1	3.90
	3	7.6	49.2	350.1	4.10
	4	7.4	45.2	341.0	4.30

**AVERAGE            7.5            46.9            368.4            4.0**

Except pH all the parameters are in mg/lit.

**Sampling Points**

1. 500mts. Upstream of First Nallah before joining Gyana Khad.
2. 500mts. Upstream of Second Nallah before joining Gyana Khad.
3. V-Notch installed in Gyana Khad. (SE Side of ML Area)
4. 500mts. Downstream from V-Notch of Gyana Khad.



ANALYSIS REPORT FOR  
WATER / WASTE WATER SAMPLE

Sample ID:47644 - Analysis Completion:08/10/2017

Cement. / LAB Inward : 7068

Himachal State Pollution Control Board, Paonta  
Y-Point Chowk  
Paonta Sahib, Distt. Sirmour  
Paonta Sahib-173025  
Tele:01704225870

TEST REPORT

Test Report No. : 7068

Date: 09/10/2017

1. Name of the Customer : Ambuja Cements Limited (Suli Plant) - 10034  
 2. Address : Cement, Village - Suli, P.O. - Darlaghat, Tehsil - Arki,, District - Solan, Himachal Pradesh  
 Suli-171102, Taluka : Arki, District : Solan(Parwanoo), GIDC : Not In SIDC  
 3. Nature of Sample : WAT-Water Act(Legal), (Insp Type : IIOR-H.O.Reference)  
 4. Sample Collected By : Lalit Kumar,AEE  
 5. Quantity of Sample Received :  
 6. Code No. of the Sample : 47644  
 7. Date & Time of Collection & Inwarding : 15/09/2017 , (1330 to 1330) & 23/09/2017  
 8. Date of Start & Completion of Analysis : 23/09/2017 & 08/10/2017  
 9. Sampling Point : final outlet of STP ~-  
 10. Flow Details (Remarks) : -  
 11. Mode of Disposal : -  
 12. Ultimate Receiving Body : 0  
 13. Temperature on Collection : - & pH Range on pH Strip :6-8  
 14. Carboys Nos for : A & Color & Appearance :Colorless  
 15. Water Consumption & W.W.G (KLPD) : Ind :800.000 , Dom :400.000 & Ind :0.000 , Dom :150.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Suspended Solids	-	-	-	9.0 mg/l
2	Biochemical Oxygen Demand (BOD)	-	-	-	4.0 mg/l
3	COD	-	-	-	56.0 mg/l
4	Oil and Grease	-	-	-	0.4 mg/l
5	pH	-	-	-	7.05

**Laboratory Remarks** : Analysis results are within prescribed limits. Data other than analysis results pertains to RO concerned. By:27-lab\_27 Dt.: 09/10/2017

Prakash Sharma,SSO

Field Observation : -

Note :

- \* - These parameters are covered under the scope of NABL.
- The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
- Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
- This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
- The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
- Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Himachal Pradesh Jurisdiction only.
- Permissible Limits: as per Schedule VI of EPA Rules, 1986 as amended by Second and Third amendment 1993 for Effluents