

Compliance of Conditions of Environment Clearance

Name of the Project: Ambuja Cements Ltd., Village Navagraon, Tehsil Nalagarh, Distt. Solan (H.P.)

Clearance letter No.: J-11011/173/2008-IA-II(I) dated 22 August 2008

Period of Compliance: October 2016 to March 2017

Sl. No.	Condition	Compliance Status
i	The particulate matter emissions from various sources shall not exceed 50 mg/Nm ³ . The fugitive emissions during loading and unloading shall be suitably controlled. Bag house/ filters shall be provided to control air emissions to achieve the prescribed standards.	To achieve the prescribed standards of Ambient air and Stack emissions, 27 Nos. of Bag filters and one main Bag House have been installed. Stack emissions are maintained well below the prescribed limit. Stack emission data from October 2016 to March 2017 reveals that the monthly average of stack emission is in the range of 8.17 mg/Nm ³ to 17.27 mg/Nm ³ . Stack Emission Data from October 2016 to March 2017 is enclosed as Table - 1
ii	The locations of ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the Himachal Pradesh Pollution Control Board (HPPCB) and additional stations shall be installed, if required, in the downwind direction as well as where maximum ground level concentrations are anticipated.	Six Ambient Air quality monitoring stations have been fixed and the report is submitted to State Pollution Control Board on monthly basis. Average Monthly Ambient Air Quality monitoring data from October 2016 to March 2017 was in the range of 53.2 ug/m ³ to 67.4 ug/m ³ for PM 10 and 14.88 ug/m ³ to 20.69 ug/m ³ for PM 2.5. Ambient Air Quality Data from October 2016 to March 2017 is enclosed as Table - 2
iii	The company shall obtain permission for drawl of 400 m ³ /day ground water from the Central Ground Water Authority/ Central Ground Water Board and copy of the same shall be submitted to the ministry and its Regional Office at Chandigarh within three months from the date of issue of this letter.	Required permission has been obtained and a copy of permission letter has already been submitted to the Regional office of MoEF, at Chandigarh vides our letter dated 22 nd June 2010.
iv	Green belt shall be developed at least in 33% of plant area to mitigate the effect of fugitive emissions all around the plant as	Provision has been kept for development of Green Belt. We have planted 6063 Trees and

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	per the guidelines of Central Pollution Control Board.	343011 Shrubs upto March 2017. Total green cover is more than 33% of the plant area. Detail of plantation up to March 2017 enclosed as Table – 3
v	The project authorities shall transport the raw materials and cement in covered means to avoid fugitive emission during transport.	All the raw materials and Cement are transported in tarpaulin covered trucks to avoid fugitive emission during transportation.
vi	No clinker manufacturing facility shall be installed by the company	Clinker manufacturing facility has not been installed.
vii	All the recommendations mentioned in the CREP guidelines for the cement plants shall be followed and complied.	All the recommendations mentioned in CREP guidelines for Cement plants are followed and complied. Compliance status enclosed as Annexure -1
	GENERAL CONDITIONS	
i	The project authorities shall strictly adhere to the stipulations of the SPCB/ state government or any other statutory body.	All stipulations of SPCB/ State Government and other statutory bodies are being complied and shall be taken care in future also.
ii	All other necessary statutory clearances from the concerned Departments including "No Objection Certificate" from the Himachal Pradesh Pollution Control Board (HPPCB) shall be obtained prior to commencement of construction and/ or operation.	No Objection Certificate was obtained from HPPCB vides letter no. PCB(1114) Ambuja Cement Navagraon/6-13867-73 dated 27/09/2008. All other Statutory Clearances like single window clearance, consent under Air and Water Acts have also been obtained.
iii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	The point has been noted and will be taken care during expansion or modification in plant in future.
iv	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	Process interlocking system has been provided which shall automatically trip off the mill in case of failure of pollution control system.
v	The gaseous emissions (SO ₂ , NO _x) and	Gaseous emission (SO ₂ and NO _x) is

	particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time.	not applicable in case of stack emissions in grinding unit where we are monitoring Particulate matter only but in case of Ambient air quality they are being monitored. All the values are within the prescribed norms.
vi	The company shall undertake following Waste	Minimization measures:
	Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.	No by product being generated from process.
	Use of "Close pneumatic" system for transport of fine material.	All fine materials are transported in closed systems to avoid any leakage/spillage.
	All venting systems shall be connected with dust arresting equipments.	All the material transfer points and venting systems are equipped with Bag Filters.
	Dust collect in pollution control equipments shall be reused.	Dust collected in pollution control equipment is automatically recycled in the respective process.
vii	Fugitive emissions in the work zone environment, product and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/Central Pollution Control Board.	Fugitive emissions in work zone environment, product and raw materials storage area is regularly monitored and are conforming to the prescribed norms.
viii	The overall noise levels in all around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	All possible noise control measures have been taken. Ambient Noise is regularly monitored and the monitored values are within the prescribed standards i.e. 75 dBA (day time) and 70 dBA (night time). A Report of Ambient Noise Monitoring for the period from October 2016 to March 2017 is enclosed as Table – 4
ix	The company shall develop rain water harvesting structures to harvest the runoff water for recharge of ground water.	Three rain water harvesting structures with proper drainage system have been made for collection of rain water to recharge the ground water. Based on the data of 2014, an assessment audit was conducted by DNV-GL a leading independent agency, and declared Ambuja Cement as a "Water Positive" Company by a greater margins of 4 times.

		Nalagarh Unit was declared to be as 1.7 times Water Positive. For the year 2016 also we at Nalagarh are 1.6 times water positive as per our own assessment.
x	Occupational health and safety measures shall be undertaken. Periodic monitorial for exposure to dust on the workers should be conducted and records maintained including health records of the workers. The company shall engage a doctor who is trained in occupational health.	Occupational Health & Safety is given the top most priority in our company. An occupational health centre has been set up with qualified doctor and a pharmacist. Regular medical checkup has been conducted for the workers as well as employees on annual basis and keeping proper records. The company has set up a separate OH&S Department that ensures strict adherence to all safety norms.
xi	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	Ambuja Cement Foundation (a Non-Governmental Organization) has been set up by the company for looking after Eco-developmental and community welfare measures in the project area and is working since the inception of the project.
xii	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	To look after the environmental management and monitoring, the company has set up a separate Environmental Management Cell equipped with full-fledged laboratory.
xiii	The project authorities shall earmark Rs. 2.20 Crores to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for all the conditions stipulated herein shall be submitted to the Ministry's Regional Office. The funds so provided shall not be diverted for any other purpose.	Though a sum of Rs.2.20 Crores was earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government, we have spent more than Rs.41 Crores on Environment Protection measures and other related activities. We have spent Rs.3411781/- from October 2016 to March 2017 for Environment Protection and other related activities.
xiv	The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry/SPCB/CPCB. A six monthly	Six monthly compliance reports are being submitted regularly. Last report from April 2016 to September 2016 was submitted vides our office

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	compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the Company.	letter No. ACL(Nlg)/EMD/2016/10-04 dated 25 th October 2016 in hard as well as soft copies and the same has also been posted on company website.
xv	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 SPCB and may also be seen at Website of the Ministry at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one should be in the Vernacular language of the locality and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	The condition has been complied with. The same had been advertised in two local news papers (The Tribune and Dainik Bhaskar) dated 29 th August 2008 in Hindi and the same had been forwarded to Regional Office of the Ministry, Chandigarh vides our letter dated 9 th September 2008.
xvi	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 the concerned authorities and the date of start of project.	The project was approved by the state govt. on March 11, 2008; EC was granted by MoEF on August 22, 2008. The project activities at site were formally started in January, 2009. Consent to Operate was issued by State Pollution Control Board on March 23, 2010 and production started on March 27, 2010.

Table - 1

STACK EMISSION MONITORING REPORT (OCTOBER 2016 - MARCH 2017)

(Average values)

Months	PM Values in mg/Nm ³					
	Cement Mill Bag House	D.G. Set	Clinker Dump Hopper Bag Filter -1	Clinker Dump Hopper Bag Filter - 2	Packing Plant Bag Filter - 1	Packing Plant Bag Filter - 2
OCTOBER 2016	9.15		14.57	10.80	13.87	17.27
NOVEMBER 2016	8.90		12.79	15.03	14.96	15.54
DECEMBER 2016	12.12		15.82	12.39	13.55	15.39
JANUARY 2017	13.10		13.01	14.61	15.68	16.36
FEBRUARY 2017	12.62		13.86	14.73	16.37	15.37
MARCH 2017	8.17		14.08	13.42	15.34	17.24

* DG not running.

Table - 2

AMBIENT AIR QUALITY MONITORING REPORT (OCTOBER 2016 - MARCH 2017)
(Average Values)

Parameter Station Name/ Month	RSPM Values ($\mu\text{g}/\text{M}^3$)											
	Station No. 1 (Labour Hutment towards Jajhira)		Station No. 2 (Rain Water Harvesting)		Station No. 3 (Roof top of Adm. Block)		Station No. 4 (Roof top of Guest House)		Station No. 5 (Near Nursery towards Pater Phaloo)		Station No. 6 (STP- Towards Ratyor)	
	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
OCTOBER 2016	60.9	17.65	63.5	18.62	58.6	16.96	61.1	18.31	59.9	17.54	60.5	16.65
NOVEMBER 2016	59.2	18.18	58.0	15.42	55.6	16.35	57.6	14.88	53.2	17.23	56.1	15.96
DECEMBER 2016	66.9	16.19	63.6	17.18	60.5	15.77	67.4	16.81	61.0	17.12	64.3	17.92
JANUARY 2017	65.7	19.48	61.8	18.87	68.6	20.27	64.0	19.12	62.2	18.38	59.1	18.69
FEBRUARY 2017	60.4	18.92	58.4	20.08	61.7	20.35	57.2	19.46	54.9	20.69	59.5	18.81
MARCH 2017	58.3	16.27	60.7	18.19	56.9	17	53.4	17.23	60.1	15.42	53.8	16.77

Parameter Station Name/ Month	Gaseous Pollutants ($\mu\text{g}/\text{M}^3$)											
	Station No. 1 (Labour Hutment towards Jajhira)		Station No. 2 (Rain Water Harvesting)		Station No. 3 (Roof top of Adm. Block)		Station No. 4 (Roof top of Guest House)		Station No. 5 (Near Nursery towards Pater Phaloo)		Station No. 6 (STP- Towards Ratyor)	
	SO ₂	NO _x	SO ₂	NO _x	SO ₂	NO _x	SO ₂	NO _x	SO ₂	NO _x	SO ₂	NO _x
OCTOBER 2016	8.0	11.7	7.8	12.1	8.1	10.9	7.0	10.2	7.5	9.1	7.8	9.9
NOVEMBER 2016	6.6	9.4	7.0	9.8	6.5	10.3	6.8	10.1	6.3	8.8	6.6	10
DECEMBER 2016	7.2	10.8	6.8	10.6	6.7	11.2	6.8	9	7	10.4	6.8	10.8
JANUARY 2017	7.4	11.4	6.5	10.3	7.1	9.8	7.2	11	7.5	11.4	7.5	11.1
FEBRUARY 2017	7.4	10.3	7.6	11.6	7.0	10.8	7.0	10.3	7.8	11.7	7.7	11.8
MARCH 2017	7.4	11.4	6.5	10.3	7.1	9.8	7.2	11	7.5	11.4	7.5	11.1

Table - 3

AMBUJA CEMENTS LIMITED (UNIT - NALAGARH)
PLANTATION DATA UPTO MARCH 2017

Month	Trees planted	Shrubs planted
Upto December 2010	1640	8968
January to December 2011	1161	18895
January to December 2012	929	2835
January to December 2013	570	2380
January to December 2014	596	636
January 2015	100	0
February 2015	19	0
March 2015	0	10
April 2015	0	60
May 2015	0	55
June 2015	30	0
July 2015	90	20
August 2015	318	22
September 2015	7	0
October 2015	0	0
November 2015	0	0
December 2015	18	90
January 2016	0	0
February 2016	0	0
March 2016	0	0
April 2016	0	0
May 2016	0	0
June 2016	56	0
July 2016	375	300
August 2016	139	30
September 2016	0	0
October 2016	0	0
November 2016	0	0
December 2016	0	0
January 2017	0	0
February 2017	0	0
March 2017	15	0
Total	6063	34301

**AMBIENT NOISE MONITORING RESULTS ALONG THE BOUNDARY WALL OF THE COMPANY
(OCTOBER 2016 - MARCH 2017)**

Location/Months	Noise Reading in dB(A)											
	October 2016		November 2016		December 2016		January 2017		February 2017		March 2017	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
Near Switch Yard	54.2	42.8	56.3	41.8	53.2	43.1	54.8	44.5	56.4	43.2	56.9	43.9
Near Batching Plant	52.7	41.5	61.6	40.7	56.8	42.2	61.3	42.4	62.5	41.9	61.3	44.4
Near Bore well - I	53.8	43.2	49.3	41.3	54.9	40.7	56.3	41.9	53.8	42.7	58.4	41.4
Near Stores Building.	61.7	40.7	56.2	43.6	62.7	41.9	61.9	43.7	62.8	40.6	53.9	43.2
At Material Gate	62.8	44.7	69.6	56.2	68.2	44.6	73.7	42.6	59.5	44.8	66.3	44.3
Near Weigh Bridge	52.9	41.7	65.2	43.8	61.1	42.7	55.8	41.8	56.4	43.2	63.6	42.8
Near Scrap yard	61.5	40.2	53.8	40.5	58.5	41.8	57.3	43.6	54.6	41.8	59.5	43.9
Near Rain Water Harvesting Structure I	49.9	40.5	56.5	41.1	54.7	43.2	55.6	40.7	52.8	42.9	58.5	40.5
Near STP	63.2	42.8	55.6	44.5	60.5	42.5	53.9	44.1	62.3	40.5	54.5	42.2
Near MPSS	56.4	43.1	53.9	42.7	52.8	41.9	59.2	42.2	53.8	41.8	52.9	41.8

Annexure - 1

Compliance of Conditions of CREP recommendations Ambuja Cements Limited Village Navagraon - Nalagarh (H.P.)

Sl. No.	Recommendation	Compliance Status
1	Cement Plants, which are not complying with notified standards, shall do the following to meet the standards; Augmentation of existing Air Pollution Control Devices - by July 2003. Replacement of existing Air Pollution Control Devices - by July 2004	Cement Grinding Unit is already meeting the notified emission standards.
2	Cement Plants located in critically polluted or urban areas (including 5 km distance outside urban boundary) will meet 100mg/ Nm ³ limit or particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50 mg/Nm ³ .	Emission level is maintained below 30 mg/Nm ³
3	The new cement kilns to be accorded NOC/Environmental Clearance w.e.f 1.04.2003 will meet the limit of 50 mg/Nm ³ for particulate matter emissions.	Not Applicable as there is no Kiln installed.
4	CPCB will evolve load based standards by December 2003.	No load based standard for cement industry particularly applicable to grinding unit has been evolved
5	CPCB and NCBM will evolve SO ₂ and NO _x emission standards by June 2004.	Not Applicable as there is no Kiln installed.
6	The Cement industries will control fugitive emissions from all the raw material and products storage and transfer points by December 2003. However, the feasibility for the control of fugitive emissions from limestone and coal storage areas will be decided by the National Task Force (NTF). The NTF shall submit its recommendations within three months.	All the material transfer points are equipped with Bag Filters. Raw materials are stored in covered areas. Maximum area inside plant is either covered with Greenery or it has been concreted to prevent fugitive emission.
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum cokes as fuel in cement kiln by July 2003.	Not Applicable as there is no Kiln installed.
8	After performance evaluation of various	Continuous emission monitoring

	types of continuous monitoring equipment and feedback from the industries and equipment manufactures, NTF will decide feasible unit operations/sections for installation of continuous monitoring equipment. The industry will install the continuous monitoring systems (CMS) by December 2003	system has been installed at Cement Mill Stack. Also a Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been installed.
9	Tripping in kiln ESP to be minimized by July 2003 as per the recommendations of NTF.	Not Applicable as there is no Kiln installed.
10	Industries will submit the target date to enhance the utilization of waste material by April, 2003.	All the particulate matter collected through APCEs is automatically recycled in the respected processes. More over we are using fly ash for making Pozolona Portland Cement (PPC) which is waste of Thermal Plants.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	Not Applicable as there is no Kiln installed.
12	Cement industries will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003. * Non complying units shall given bank guarantee to respective SPCBs.	Not Applicable.

AMBUJA CEMENTS LIMITED (UNIT - NALAGARH)

CEMENT PRODUCTION DATA FROM OCTOBER 2016 TO MARCH 2017

MONTH	CEMENT PRODUCTION (METRIC TONNES)
OCTOBER 2016	88433
NOVEMBER 2016	86338
DECEMBER 2016	72832
JANUARY 2017	69028
FEBRUARY 2017	66787
MARCH 2017	110094
TOTAL	493512