Ambuja Cement

Registered A/D

ACL/EMD/F-28 **Date: 18/06/2014**

To,

The Director
Govt. of India
Ministry of Environment & Forests
Regional Office (Central Region)
Kendriya Bhawan, 5th Floor,
Sector 'H', Aliganj, Lucknow – 226 024 (U.P.)

Sub: Half-yearly Condition wise Compliance report of Environmental Clearance for 3.6 MTPA Cement Plant along with 18 MW Captive Thermal Power Plant

Dear Sir,

This has reference to the Environmental Clearance Letter No.: - J-11011/189/2006-IA.II (I) Dated 31/08/2006. We are submitting herewith the half-yearly compliance and analysis reports for Stack Emission, Ambient Air Quality and Water & Waste water from **October 2013 TO March 2014.**

Hope you will find the same in order.

Yours faithfully,

For **Ambuja Cements Limited**
Unit: Rabriyawas

Dr. Anil Kumar
Sr. Manager (Environment)

Encl.: **A/A & Soft copy**

Cc:

1) The Zonal Incharge, CPCB, Zonal Office (Central), 3rd Floor, Sahakar Bhawan, North T.T. Nagar, Bhopal, 462 003

2) RSPCB, 4th, Institutional Area, Jhalana Doongri, Jaipur 302 004

3) Regional Officer, SA–6, Mandia Road Industrial Area, Pali

AMBUJA CEMENTS LIMITED
UNIT – RABRIYAWAS
Works: PO Rabriyawas, Tehsil – Jaitaran, Dist. – Pali (Raj.) 306 709
Tel: 02939 288011-18, Fax: 02939 288030
CIN: L26942GJ1981PLC004717 Website: www.ambujacement.com
(Registered Office: PO – Ambujanagar, Taluka – Kodinar, Dist. – Gir Somnath (Guj.) 362 715)

COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE (NO.J-11011/189/ 2006-IA.II (I) DATED 31/08/2006) FOR 3.6 MTPA CEMENT PLANT ALONG WITH 18 MW CAPTIVE THERMAL POWER PLANT

Period: October 2013 TO March 2014

S. No.	Condition	Compliance Status
	A. Specific Conditions:	
i	The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Rajasthan State Pollution Control Board. At no time, particulate emissions from the cement plant including kiln, coal mill, cement mill, cooler and captive power plant (CPP) shall exceed 50 and 100 mg/Nm^3 respectively. Continuous online monitors for particulate emissions shall be installed. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit(s) is shutdown automatically.	Noted & Complied. a) The stacks emissions results are well within the prescribed norms (<50 mg/Nm^3) and monitoring report is enclosed. **(Annexure I)** b) Continuous online monitors installed at all the major stacks. c) Interlocking facility -The automation & computer programming for the operation of the production equipments are in such order that unless the pollution control devices start the production equipments down line and other ancillary equipments will not operate in any given time. This arrangement is from beginning of the plant with software, which gives command for operation. As such the system is interlocked vice versa. d) Online Continuous Emission Monitoring System has installed in main raw mill/kiln stack to monitor the parameters like Dust, CO, CO_2, HCl, SO_2, $NO/NO_2/NOx$, VOC, NH_3, O_2, Temp. Flow etc.
ii	Ambient air quality including noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with RSPCB and online data for air emission shall be transferred to the CPCB and RSPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.	Noted & Complied. Ambient air quality (AAQ) including noise level is being monitored on regular basis at four locations approved by RSPCB and the results are well within the prescribed norms and monitoring reports are being submitted to RSPCB and CPCB regularly. AAQ monitoring report is enclosed. **(Annexure II)** In respect to comply of new National Ambient Air Quality Standards, we have installed a Continuous Ambient Air Quality Monitoring Station (CAQQMS) at SWRP. Calibration of the all instrument & analyzer is regularly carried out.
iii	The company shall install highly efficient and adequate dust collection and extraction system to control fugitive emissions at coal and lime stone unloading points, at all transfer points, raw material, coal and clinker handling areas etc. Bag filters shall be provided in raw mill, clinker stockpile top, cement mill, cement silos and ESP to captive power plant to control air emissions. The dust collected from the pollution control equipments shall be recycled back into the process. Storage of raw material shall be in closed roof sheds. Limestone clinker unit to the plant site by using tippers and to avoid fugitive emissions on the road. Water sprinkling arrangement shall be made in the raw material stockyard and cement bag loading areas.	Noted & Complied ESP – 5 Nos. Jet Pulse Filter – 84 Nos. All are working efficiently and controlled emission. Five nos. road sweepers are provide for cleaning of road.

iv	All the recommendations of the Corporate Responsibility for Environmental Protection (CREP) shall be strictly followed and SPM concentrations below 50 mg/Nm^3 shall be maintained in kiln, coal mill, cement mill and clinker cooler.	Noted & Complied
v	Total ground water requirement shall not exceed 2,000 m^3/d as per the permission accorded by the Central Ground Water Board. Further efforts shall be made to conserve water and recycle/reuse treated wastewater for the green belt development and other plant related activities. No treated waster will be discharged outside the premises and 'Zero' discharge shall be strictly adopted. The domestic effluent shall be treated in sewage water reclamation plant (SWRP) and shall be utilized for green belt development.	Complied. Our average water consumption in the plant is around 2,000 m^3/day, however, we have obtained permission for the abstraction @ 2400 KLD form CGWA vide letter No. 21-4(5)/WR/CGWA/05-1188 dated 15.10.2010 and now open ended permission has given by CGWA vide letter no. 21-4(5) WR / CGWA / 2005 - 627, dated 24.05.2011. SWRP treated water analysis report is enclosed. (**Annexure III**) Rain water harvesting is extensively carried out in mines and near by areas by our Ambuja Cement Foundation. (ACF) **(Annexure IV)** 160 m^3/day capacity SWRP is effectively operating to treat sewage water.
vi	Rain water harvesting shall be strictly adhered and implemented for the augmentation of ground water storage at the cement plant site, colony and mine site, besides, company shall also harvest the rainwater from the roof tops and storm water drains to discharge the ground water. The company shall also collect rain water in the mined out pits of captive lime stone mine and use the same water for the various activities of the project to conserve fresh water.	Complied and is part of our community welfare measures. We have under taken various efforts for augmentation the ground water resources by harnessing surface run off & construction of artificial recharge structures at suitable locations in and around the area. We have develop the earthen dam of average dimension 400 m length x 200 m width x 1 m depth to collect available rain water during monsoon period including the roof top of the plant building, paved & open area.
vii	Out of 354.74 ha. land available, plantation will be done in 117 ha. and a time bound action plan shall be submitted to the ministry and its Regional Office at Lucknow. Further efforts shall be made to maintain the area properly which has already been afforested.	Being Complied. Submitted vide our letter dated 12.2.2007 Greenbelt Development as on 31.03.2014 and 157248 number of sapling has been planted and report is enclosed. (**Annexure V**)
viii	Solid wastes viz. fly ash and dust etc. shall be properly recycled and reutilized in the cement plant itself and bottom ash from CPP in the mines pits etc. Used oil and grease will be sold to the authorized recyclers / reprocessors only. STP sludge shall be used as manure for green belt development.	Noted & complied **Fly ash**- fly ash transported to fly ash silo by a closed circuit dense phase system and utilized 100% in PPC manufacturing. **Bottom Ash**- Bottom Ash used in Raw Meal. **SWRP sludge**- SWRP sludge used as manure for green belt development in plant premises. **Used Oil & Grease** is being sold to the authorized recyclers/reprocessors only.
ix	The company shall undertake eco-development measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan shall be submitted to the RSPCB within three months of receipt of this letter for approval.	Complied. Ambuja Cement Foundation has organized various activities on eco-development & community welfare measures in plant and nearby villages. ACF report is enclosed. **(Annexure VI)** Plan submitted to RPCB vide our letter dated 5.12.06 and 21.6.07.

x	The project authorities shall not commence operation of the expanded capacity of the cement plant without prior environmental clearance for the proposed expansion of the limestone mines.	Obtained Environmental Clearance vides Letter No. J-11015/148/2006-IA.II (M) 10.10.2007 and J-11011/54/2010-IA-II(I) dated 29.03.2012 for proposed expansion of the limestone mines.
	B. General Conditions :	
i	The project authority shall adhere to the stipulations made by Rajasthan State Pollution Control Board (RSPCB) and State Government.	Noted & being complied. Monthly compliance report is being sent to Board offices at Jaipur & Pali.
ii	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	Noted.
iii	At least four ambient air quality monitoring stations shall be established in the down wind direction as well as where maximum ground level concentration of SPM, SO_2 and NOx are anticipated in consultation with the RSPCB. Data on ambient air quality and stack emissions shall be regularly submitted to this ministry including its Regional Office at Lucknow / RSPCB and CPCB once in six months.	Complied. Stack Monitoring reports & Ambient air quality monitoring report are enclosed. (**Annexure I**) & (**Annexure II**).
iv	Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Complied. No effluent generated from cement plant. Only waste water generated from DM Plant which is properly collected and treated in neutralization pit and used in synthetic gypsum plant within the plant premises. Analysis Report is enclosed. (**Annexure III**)
v	The overall 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 levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules viz. 75 dBA (day time) and 70 dBA (night time).	Complied. Ambient Noise and Machinery noise monitoring report is enclosed. (**Annexure VII**)
vi	Proper housekeeping and adequate occupational health programmes shall be taken up. Occupational Health Surveillance programme shall be done on a regular basis and records maintained properly for at least 30-40 years. The programme shall include lung function and sputum analysis tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.	Complied Health checkup of employees of ACL, Rabriyawas is carried out in Ambuja Hospital. In this exercise a comprehensive general physical and systematic examination is carried out for staff, workers and contractor employees. The general and occupational health of the examined persons was found satisfactory. (**Annexure VIII**)
vii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP.	Noted & being complied.
viii	A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	A full-fledged Environmental cell has been set up with latest equipment. All the monitoring being carried out by the lab. **Annexure-IX).**

ix	As mentioned in the EIA/EMP, Rs. 47.89 Crores and Rs. 1.98 Crores allocated towards the capital cost and recurring cost per annum shall be used exclusively to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Time bound implementation schedule for implementing all the conditions stipulated herein shall be submitted. The funds so provided shall not be diverted for any other purpose.	Noted & being complied. New air pollution control equipments (JPFs) are installed at Pyro modification, New Fly ash Handling System, Gypsum handling system and New Clinker storage Silo.
x	The Regional Office of this Ministry at Lucknow / CPCB / RSPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data alongwith statistical interpretation shall be submitted to them regularly.	Noted & complied A six monthly compliance report submitted our vide letter ACL/EMD/F-28 dated 22/11/2013.
xii	The Project Authorities shall inform the Regional Office as well as the Ministry, the date if financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Noted
xiii	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 Rajasthan State Pollution Control Board / Committee and may also be seen at website of the Ministry of Environment and Forests at http:/envfor.nic.in. This should 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 shall be in the vernacular language of the locality concerned and a copy of the same forwarded to the Regional Office at Lucknow.	Complied and published in newspapers on 03.09.06 in Danik Bhaskar and Rajasthan Patrika.

Dr. Anil Kumar
Sr. Manager (Environment)

Annexure - I

Ambuja Cements Limited
Unit - Rabriyawas

Cement Plant - Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack / Duct Attached with the Unit	Date	Stack Temp. ^{o}K	Velocity M/sec.	Flow of Gas $Nm^3/Sec.$	Emission Concentration Mg/Nm^3	Mean Concentration Mg/Nm^3	Remarks		
							Kiln Feed During Testing (T/Hr.)	Kiln R. Hrs.	Raw Mill On/Off During Testing
Raw mill/Kiln Bag House	09.10.13	388	12.20	79.28	16.88	15.65	-	-	-
							-	-	-
	21.10.13	390	11.18	72.28	14.42		-	-	-
									-
Clinker Cooler ESP	09.10.13	438	14.96	86.12	34.12	36.07	-	-	-
							-	-	-
	22.10.13	444	16.88	95.86	38.02		-	-	-
Coal Mill Bag filter I	10.10.13	312	12.46	23.75	38.12	37.35	-	-	-
							-	-	-
	23.10.13	308	11.67	22.53	36.58		-	-	-
Coal Mill Bag filter II	10.10.13	306	13.80	19.50	36.18	35.23	-	-	-
							-	-	-
	23.10.13	310	14.85	20.71	34.28		-	-	-
Cement Mill -I ESP	12.10.13	311	12.88	17.91	34.66	34.44	-	-	-
							-	-	-
	25.10.13	315	12.40	17.02	34.22		-	-	-
Cement Mill-II ESP	12.10.13	312	11.45	15.87	32.86	32.75	-	-	-
							-	-	-
	25.10.13	317	12.80	17.46	32.64		-	-	-
Fly Ash Dump Hopper JPF	14.10.13	310	14.10	7.58	32.66	32.52	-	-	-
							-	-	-
	26.10.13	312	13.55	7.24	32.38		-	-	-

* Plant was under shutdown

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Ambuja Cements Limited
Unit - Rabriyawas

Cement Plant - Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack / Duct Attached with the Unit	Date	Stack Temp. ^{O}K	Velocity M/sec.	Flow of Gas $Nm^3/Sec.$	Emission Concentration Mg/Nm^3	Mean Concentration Mg/Nm^3	Remarks		
							Kiln Feed During Testing (T/Hr.)	Kiln R. Hrs.	Raw Mill On/Off During Testing
Raw mill/Kiln Bag House	11.11.2013	392	11.88	76.42	37.88	36.54	-	-	-
							-	-	-
	25.11.2013	390	11.18	72.28	35.20		-	-	-
									-
Clinker Cooler ESP	12.11.2013	442	15.86	90.48	38.98	38.50	-	-	-
							-	-	-
	27.11.2013	444	16.88	95.86	38.02		-	-	-
Coal Mill Bag filter I	11.11.2013	310	12.08	23.17	36.52	36.55	-	-	-
							-	-	-
	25.11.13	308	11.67	22.53	36.58		-	-	-
Coal Mill Bag filter II	13.11.2013	312	14.88	20.62	38.22	36.25	-	-	-
							-	-	-
	28.11.2013	310	14.85	20.71	34.28		-	-	-
Cement Mill -I ESP	14.11.2013	316	12.86	17.60	32.26	33.17	-	-	-
							-	-	-
	29.11.2013	315	12.48	17.13	34.08		-	-	-
Cement Mill-II ESP	14.11.2013	318	11.85	16.11	32.06	32.50	-	-	-
							-	-	-
	29.11.13	319	12.80	17.35	32.94		-	-	-
Fly Ash Dump Hopper JPF	16.11.2013	314	16.10	8.55	32.02	32.25	-	-	-
							-	-	-
	30.11.2013	316	14.55	7.67	32.48		-	-	-

Lab. Incharge (Env.)

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Ambuja Cements Limited
Unit - Rabriyawas

Cement Plant - Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack / Duct Attached with the Unit	Date	Stack Temp. ^{o}K	Velocity M/sec.	Flow of Gas $Nm^3/Sec.$	Emission Concentration Mg/Nm^3	Mean Concentration Mg/Nm^3	Remarks		
							Kiln Feed During Testing (T/Hr.)	Kiln R. Hrs.	Raw Mill On/Off During Testing
Raw mill/Kiln Bag House						44.81			
	09.12.2013	398	12.08	76.53	45.42		-	-	-
							-	-	-
	24.12.2013	390	11.18	72.28	44.20		-	-	-
									-
Clinker Cooler ESP	10.12.2013	438	16.06	92.45	42.80	39.80	-	-	-
							-	-	-
	25.12.2013	442	16.98	96.87	36.80		-	-	-
Coal Mill Bag filter I	09.12.2013	312	12.48	23.79	36.02	37.45	-	-	-
							-	-	-
	24.12.2013	314	12.64	23.94	38.88		-	-	-
Coal Mill Bag filter II	13.12.2013	318	14.20	19.31	36.22	35.15	-	-	-
							-	-	-
	26.12.2013	314	14.05	19.35	34.08		-	-	-
Cement Mill -I ESP	14.12.2013	318	12.26	16.67	32.86	33.87	-	-	-
							-	-	-
	27.12.2013	316	12.88	17.63	34.88		-	-	-
Cement Mill-II ESP	14.12.2013	316	11.20	15.33	34.26	34.15	-	-	-
							-	-	-
	27.12.2013	314	12.00	16.53	34.04		-	-	-
Fly Ash Dump Hopper JPF	16.12.2013	316	14.10	7.44	30.24	31.16	-	-	-
							-	-	-
	28.12.2013	318	14.85	7.78	32.08		-	-	-

Lab. Incharge (Env.)

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Ambuja Cements Limited
Unit - Rabriyawas

Cement Plant - Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack / Duct Attached with the Unit	Date	Stack Temp. ^{o}K	Velocity M/sec.	Flow of Gas $Nm^3/Sec.$	Emission Concentration Mg/Nm^3	Mean Concentration Mg/Nm^3	Remarks		
							Kiln Feed During Testing (T/Hr.)	Kiln R. Hrs.	Raw Mill On/Off During Testing
Raw mill/Kiln Bag House	08.01.2014	401	12.10	76.08	18.82	21.85	-	-	-
							-	-	-
	24.01.2014	396	12.48	79.46	24.88		-	-	-
									-
Clinker Cooler ESP	08.01.2014	442	18.20	103.83	40.11	42.15	-	-	-
							-	-	-
	24.01.2014	445	17.88	101.31	44.18		-	-	-
Coal Mill Bag filter I	09.01.2014	310	11.88	22.79	33.24	35.01	-	-	-
							-	-	-
	27.01.2014	312	12.12	23.10	36.78		-	-	-
Coal Mill Bag filter II	09.01.2014	320	13.80	18.65	38.42	39.43	-	-	-
							-	-	-
	27.01.2014	318	14.10	19.17	40.44		-	-	-
Cement Mill -I ESP	09.01.2014	320	13.17	17.80	34.81	35.47	-	-	-
							-	-	-
	27.01.2014	319	12.76	17.30	36.12		-	-	-
Cement Mill-II ESP	10.01.2014	321	13.10	17.65	36.22	35.68	-	-	-
							-	-	-
	28.01.2014	320	12.14	16.41	35.14		-	-	-
Fly Ash Dump Hopper JPF	10.01.2014	314	13.88	7.37	34.56	33.98	-	-	-
							-	-	-
	28.01.2014	316	14.18	7.48	33.40		-	-	-

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Ambuja Cements Limited
Unit - Rabriyawas

Cement Plant - Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack / Duct Attached with the Unit	Date	Stack Temp. ^{O}K	Velocity M/sec.	Flow of Gas $Nm^3/Sec.$	Emission Concentration Mg/Nm^3	Mean Concentration Mg/Nm^3	Remarks		
							Kiln Feed During Testing (T/Hr.)	Kiln R. Hrs.	Raw Mill On/Off During Testing
Raw mill/Kiln Bag House	10.02.2014	405	13.11	81.62	25.45	24.01	-	-	-
							-	-	-
	22.02.2014	408	12.88	79.60	22.56		-	-	-
									-
Clinker Cooler ESP	10.02.2014	446	18.88	106.74	42.46	42.07	-	-	-
							-	-	-
	22.02.2014	448	17.34	97.59	41.67		-	-	-
Coal Mill Bag filter I	10.02.2014	314	12.22	23.14	40.24	39.40	-	-	-
							-	-	-
	22.02.2014	316	13.10	24.65	38.56		-	-	-
Coal Mill Bag filter II	12.02.2014	316	12.86	17.60	42.87	41.11	-	-	-
							-	-	-
	24.02.2014	320	13.11	17.72	39.34		-	-	-
Cement Mill -I ESP	12.02.2014	318	12.92	17.57	36.82	38.58	-	-	-
							-	-	-
	24.02.2014	321	13.10	17.65	40.34		-	-	-
Cement Mill-II ESP	12.02.2014	319	12.42	16.84	40.67	39.40	-	-	-
							-	-	-
	24.02.2014	318	12.42	16.89	38.12		-	-	-
Fly Ash Dump Hopper JPF	12.02.2014	318	11.22	5.88	36.78	34.80	-	-	-
							-	-	-
	24.02.2014	320	12.56	6.54	33.40		-	-	-

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Ambuja Cements Limited
Unit - Rabriyawas

Cement Plant - Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack / Duct Attached with the Unit	Date	Stack Temp. ^{O}K	Velocity M/sec.	Flow of Gas $Nm^3/Sec.$	Emission Concentration Mg/Nm^3	Mean Concentration Mg/Nm^3	Remarks		
							Kiln Feed During Testing (T/Hr.)	Kiln R. Hrs.	Raw Mill On/Off During Testing
Raw mill/Kiln Bag House	11.03.2014	408	12.67	78.30	26.18	25.72	-	-	-
							-	-	-
	20.03.2014	410	13.12	80.69	25.26		-	-	-
									-
Clinker Cooler ESP	11.03.2014	448	18.11	101.93	44.34	43.23	-	-	-
							-	-	-
	20.03.2014	451	18.24	101.98	42.12		-	-	-
Coal Mill Bag filter I	11.03.2014	318	12.45	23.28	38.18	39.57	-	-	-
							-	-	-
	20.03.2014	319	12.88	24.01	40.96		-	-	-
Coal Mill Bag filter II	11.03.2014	317	13.10	17.87	40.16	39.30	-	-	-
							-	-	-
	20.03.2014	318	12.98	17.65	38.44		-	-	-
Cement Mill -I ESP	12.03.2014	320	11.87	16.04	40.88	40.67	-	-	-
							-	-	-
	21.03.2014	321	12.54	16.89	40.46		-	-	-
Cement Mill-II ESP	12.03.2014	320	13.24	17.89	38.14	38.75	-	-	-
							-	-	-
	21.03.2014	322	12.36	16.60	39.35		-	-	-
Fly Ash Dump Hopper JPF	12.03.2014	321	12.10	6.28	34.77	34.80	-	-	-
							-	-	-
	21.03.2014	322	12.24	6.34	36.20		-	-	-

Lab. Incharge (Env.)

F01(09-10)/03

Ambuja Cements Limited

Unit: Rabriyawas

CPP- Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack/Duct attached with the Unit	Date	Stack Temp (K)	Velocity m/sec	Flow of Gas Nm3/sec	Particulate Matter Emission Mg/Nm3	Mean Conc. Mg/Nm3
Boiler ESP	15/10/2013	388	12.28	213.78	24.24	25.23
	29/10/2013	384	12.38	217.77	26.22	

CPP- Plant Machinery Noise Level dB(A)

Location	Date of Minitoring	Noise Level dB(A)	
		At 5 Meter Distance	At 15 Meter Distance
Boiler-I	15/10/2013	78.2	68.2
Turbine/Generator-I	15/10/2013	74.9	66.2
Boiler-II	15/10/2013	84.2	66.4
Turbine/Generator-II	15/10/2013	80.9	70.2
D M Plant	15/10/2013	74.8	63.2

Name of the Stack/Duct attached with the Unit	Date	Stack Temp (K)	Velocity m/sec	Flow of Gas Nm3/sec	Particulate Matter Emission Mg/Nm3	Mean Conc. Mg/Nm3
Boiler ESP	12.11.2013	384	13.40	235.71	22.80	22.61
	26.11.2013	388	12.82	223.18	22.42	

CPP- Plant Machinery Noise Level dB(A)

Location	Date of Minitoring	Noise Level dB(A)	
		At 5 Meter Distance	At 15 Meter Distance
Boiler-I	15.11.2013	76.8	64.8
Turbine/Generator-I	15.11.2013	76.2	63.4
Boiler-II	15.11.2013	78.4	62.2
Turbine/Generator-II	15.11.2013	82.6	66.6
D M Plant	15.11.2013	75.8	68.8

Name of the Stack/Duct attached with the Unit	Date	Stack Temp (K)	Velocity m/sec	Flow of Gas Nm3/sec	Particulate Matter Emission Mg/Nm3	Mean Conc. Mg/Nm3
Boiler ESP	11.12.2013	383	12.8	225.74	20.80	21.61
	27.12.2013	384	12.46	219.17	22.42	

CPP- Plant Machinery Noise Level dB(A)

Location	Date of Minitoring	Noise Level dB(A)	
		At 5 Meter Distance	At 15 Meter Distance
Boiler-I	11.12.2013	82.2	64.8
Turbine/Generator-I	11.12.2013	78.8	72.2
Boiler-II	11.12.2013	84.8	68.8
Turbine/Generator-II	11.12.2013	80.9	68.8
D M Plant	11.12.2013	74.4	66.9

Note: Ambient Air Quality & Ambient Noise reports incorporated in Cement Plant Report.

Lab. Incharge (ENV.)

Ambuja Cements Limited

Unit: Rabriyawas

CPP- Data Sheet for Particulate Matter Emission From Point Source

Name of the Stack/Duct attached with the Unit	Date	Stack Temp (K)	Velocity m/sec	Flow of Gas Nm3/sec	Particulate Matter Emission Mg/Nm3	Mean Conc. Mg/Nm3
Boiler ESP	13/01/2014	382	12.46	220.32	26.74	24.04
	30/01/2014	385	13.12	230.18	21.34	

CPP- Plant Machinery Noise Level dB(A)

Location	Date of Minitoring	Noise Level dB(A)	
		At 5 Meter Distance	At 15 Meter Distance
Boiler-I	13/01/2014	77.1	67.1
Turbine/Generator-I	13/01/2014	75.4	65.2
Boiler-II	13/01/2014	82.4	68.9
Turbine/Generator-II	13/01/2014	80.3	69.4
D M Plant	13/01/2014	76.7	62.4

Name of the Stack/Duct attached with the Unit	Date	Stack Temp (K)	Velocity m/sec	Flow of Gas Nm3/sec	Particulate Matter Emission Mg/Nm3	Mean Conc. Mg/Nm3
Boiler ESP	06.02.2014	388	12.88	224.22	24.81	23.35
	24.02.2014	390	13.1	226.88	21.88	

CPP- Plant Machinery Noise Level dB(A)

Location	Date of Minitoring	Noise Level dB(A)	
		At 5 Meter Distance	At 15 Meter Distance
Boiler-I	24.02.2014	78.8	66.2
Turbine/Generator-I	24.02.2014	75.1	62.7
Boiler-II	24.02.2014	80.3	64.2
Turbine/Generator-II	24.02.2014	80.9	64.7
D M Plant	24.02.2014	72.1	66.6

Name of the Stack/Duct attached with the Unit	Date	Stack Temp (K)	Velocity m/sec	Flow of Gas Nm3/sec	Particulate Matter Emission Mg/Nm3	Mean Conc. Mg/Nm3
Boiler ESP	04.03.2014	390	12.44	215.45	26.11	25.34
	25.03.2014	388	13.42	233.63	24.56	

CPP- Plant Machinery Noise Level dB(A)

Location	Date of Minitoring	Noise Level dB(A)	
		At 5 Meter Distance	At 15 Meter Distance
Boiler-I	25.03.2014	81.4	66.6
Turbine/Generator-I	25.03.2014	75.8	70.4
Boiler-II	25.03.2014	82.2	69.3
Turbine/Generator-II	25.03.2014	80.2	66.3
D M Plant	25.03.2014	75.5	67.8

Note: Ambient Air Quality & Ambient Noise reports incorporated in Cement Plant Report.

Lab. Incharge (ENV.)

FO3(09-10)/03

Ambuja Cements Limited

Unit: Rabriyawas

Annexure - II

Data Sheet for Ambient Air Quality Monitoring Results of Cement Plant

Period: Oct-13

Date of Sampling	At SWRP (C1)					Near Old Limestone Crusher (C2)					Old Weigh Bridge (C3)					SW End of CPP Boundary (Near Ballada Gate) (C4)				
	µg/M^3					µg/M^3					µg/M^3					µg/M^3				
	PM10	PM2.5	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO
1.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.10.2013	56.22	40.38	10.18	12.36	NT	61.23	298.41	11.08	14.30	NT	58.30	302.56	9.82	11.18	NT	61.58	322.26	12.28	12.21	NT
5.10.2013	58.14	40.44	8.12	13.28	NT	58.18	302.16	11.12	14.82	NT	55.80	312.52	10.14	10.20	NT	63.24	328.26	12.22	14.08	NT
6.10.2013																				
7.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.10.2013	60.86	42.24	11.24	16.33	NT	56.45	290.56	10.12	12.88	NT	58.45	295.34	10.10	12.66	NT	58.24	312.24	12.56	14.26	NT
12.10.2013	56.14	38.44	10.18	13.22	NT	55.18	297.60	11.47	14.32	NT	50.89	310.50	11.12	12.20	NT	60.24	318.24	12.12	14.18	NT
13.10.2013																				
14.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.10.2013	68.12	42.46	11.80	14.28	NT	58.22	298.33	10.90	12.96	NT	52.18	290.36	10.18	12.16	NT	66.10	320.24	12.28	14.28	NT
19.10.2013	60.11	44.12	11.10	14.12	NT	60.22	304.27	11.02	16.69	NT	57.12	300.25	12.47	18.21	NT	64.44	318.88	12.34	13.35	NT
20.10.2013																				
21.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.10.2013	66.86	44.24	11.28	18.36	NT	58.45	288.56	10.12	11.88	NT	60.45	286.34	10.08	14.66	NT	58.24	322.24	11.56	16.26	NT
26.10.2013	68.22	46.18	10.16	14.22	NT	58.56	296.34	11.18	11.15	NT	62.54	290.78	10.02	12.68	NT	62.36	324.22	12.42	14.88	NT
27.10.2013																				
28.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.10.2013																				
31.10.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	63.39	42.95	10.96	15.09	NT	57.85	295.94	10.80	13.31	NT	56.94	295.60	10.66	13.76	NT	61.60	319.34	12.21	14.54	NT

NT: - NOT TRACEABLE IN THE SAMPLE.

Lab. Incharge (Env.)

Ambuja Cements Limited

Unit: Rabriyawas

Data Sheet for Ambient Air Quality Monitoring Results of Cement Plant

Period: Nov-13

Date of Sampling	At SWRP (C1)					Near Old Limestone Crusher (C2)					Old Weigh Bridge (C3)					SW End of CPP Boundary (Near Ballada Gate) (C4)				
	µg/M^3					µg/M^3					µg/M^3					µg/M^3				
	PM10	PM2.5	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO
1.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.11.2013	61.28	41.28	9.18	12.88	NT	65.28	288.22	11.02	12.80	NT	60.30	308.56	9.02	11.18	NT	61.88	312.86	12.08	14.28	NT
7.11.2013	60.04	42.04	10.08	14.28	NT	62.18	302.06	10.02	14.02	NT	65.80	302.52	10.84	12.80	NT	62.08	322.86	10.22	12.28	NT
8.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.11.2013	60.86	42.24	11.24	16.33	NT	56.45	312.08	10.12	12.88	NT	58.45	305.34	10.10	12.66	NT	58.24	312.24	12.56	14.26	NT
14.11.2013	56.14	38.44	10.18	13.22	NT	55.18	297.60	11.47	14.32	NT	50.89	310.50	11.12	12.20	NT	60.24	318.24	12.12	14.18	NT
15.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.11.2013	60.11	44.12	11.10	14.12	NT	60.22	304.27	11.02	16.69	NT	57.12	300.25	12.47	18.21	NT	64.44	318.88	12.34	13.35	NT
21.11.2013	66.86	44.24	11.28	18.36	NT	58.45	288.56	10.12	11.88	NT	60.45	286.34	10.08	14.66	NT	58.24	322.24	11.56	16.26	NT
22.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.11.2013	62.86	42.24	11.24	16.33	NT	56.45	298.56	10.12	12.88	NT	58.45	295.34	10.10	12.66	NT	58.24	312.24	12.56	14.26	NT
28.11.2013	60.14	40.28	10.18	13.22	NT	55.18	297.60	11.47	14.32	NT	50.89	310.50	11.12	12.20	NT	60.24	318.24	12.12	14.18	NT
29.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.11.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	**61.00**	**41.94**	**10.76**	**15.12**	**NT**	**57.73**	**300.10**	**10.62**	**13.86**	**NT**	**57.44**	**301.54**	**10.83**	**13.63**	**NT**	**60.25**	**317.85**	**11.93**	**14.11**	**NT**

NT: - NOT TRACEABLE IN THE SAMPLE.

Lab. Incharge (Env.)

Ambuja Cements Limited

Unit: Rabriyawas

Data Sheet for Ambient Air Quality Monitoring Results of Cement Plant

Period: Dec-13

Date of Sampling	At SWRP (C1)					Near Old Limestone Crusher (C2)					Old Weigh Bridge (C3)					SW End of CPP Boundary (Near Ballada Gate) (C4)				
	µg/M^3					µg/M^3					µg/M^3					µg/M^3				
	PM10	PM2.5	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO
1.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.12.2013	66.12	44.46	12.00	12.22	NT	55.22	290.33	11.90	14.96	NT	58.18	286.36	11.18	12.16	NT	66.10	320.24	12.28	14.28	NT
3.12.2013	68.24	48.12	12.24	14.20	NT	57.25	294.60	10.11	14.80	NT	56.18	290.60	9.10	12.52	NT	62.34	318.80	12.44	14.16	NT
4.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.12.2013	60.11	44.12	12.10	14.12	NT	60.22	304.27	21.02	18.69	NT	57.12	300.25	23.47	20.21	NT	60.44	318.88	12.34	13.35	NT
10.12.2013	58.21	48.24	10.88	13.45	NT	54.25	315.41	24.85	21.45	NT	61.28	314.52	20.36	18.33	NT	60.88	312.46	11.35	13.65	NT
11.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.12.2013	71.86	42.26	12.80	14.22	NT	55.62	290.33	10.90	12.96	NT	54.20	290.36	10.18	12.16	NT	66.10	320.24	12.28	14.28	NT
19.12.2013	68.24	48.12	12.44	14.20	NT	57.25	289.66	10.11	13.27	NT	56.18	296.30	11.10	12.52	NT	62.34	318.80	12.44	14.16	NT
20.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.12.2013	62.40	42.18	12.12	14.24	NT	54.23	290.41	10.04	12.20	NT	60.30	308.56	10.88	12.18	NT	58.58	312.28	12.24	14.21	NT
26.12.2013	56.14	40.20	10.18	13.22	NT	55.18	297.60	11.47	14.32	NT	50.89	310.50	11.12	12.20	NT	62.24	318.24	12.12	14.18	NT
27.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.12.2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	**62.83**	**44.19**	**11.75**	**13.91**	**NT**	**56.13**	**297.95**	**14.73**	**15.48**	**NT**	**56.66**	**303.42**	**14.52**	**14.60**	**NT**	**61.76**	**316.82**	**12.13**	**13.97**	**NT**

NT: - NOT TRACEABLE IN THE SAMPLE.

Lab. Incharge (Env.)

Ambuja Cements Limited

Unit: Rabriyawas

Data Sheet for Ambient Air Quality Monitoring Results of Cement Plant

Period: Jan-14

Date of Sampling	At SWRP (C1)					Near Old Limestone Crusher (C2)					Old Weigh Bridge (C3)					SW End of CPP Boundary (Near Ballada Gate) (C4)				
	µg/M³					µg/M³					µg/M³					µg/M³				
	PM10	PM2.5	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO
1.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.01.2014	58.20	44.16	10.18	14.22	NT	68.80	320.22	12.22	14.78	NT	58.66	346.88	10.22	14.44	NT	64.12	352.80	12.34	14.84	NT
7.01.2014	60.61	48.22	12.16	13.19	NT	62.46	338.66	12.14	15.56	NT	62.34	352.68	11.64	13.24	NT	58.54	348.66	12.66	13.52	NT
8.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.01.2014	66.86	42.14	12.24	14.14	NT	72.46	322.96	12.16	14.14	NT	64.12	348.88	9.23	12.44	NT	62.38	320.80	12.10	13.10	NT
14.01.2014	58.12	44.80	10.22	12.22	NT	64.52	342.24	11.80	14.88	NT	60.18	352.12	10.22	12.36	NT	60.12	318.12	9.42	13.88	NT
15.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
20.01.2014	58.44	46.14	12.21	14.22	NT	62.16	318.22	12.80	14.80	NT	66.12	322.18	9.98	13.67	NT	56.88	340.40	12.20	13.30	NT
21.01.2014	64.12	50.12	11.88	14.18	NT	68.12	322.78	12.44	14.12	NT	60.18	316.34	10.88	12.44	NT	50.20	328.42	11.88	13.44	NT
22.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.01.2014	56.34	48.12	12.34	14.14	NT	68.34	322.22	12.24	14.26	NT	56.20	314.55	9.90	13.12	NT	60.14	320.35	9.34	14.14	NT
28.01.2014	52.12	46.20	11.46	14.88	NT	62.12	320.36	12.18	14.30	NT	54.12	310.22	10.10	14.12	NT	58.34	346.16	10.12	13.22	NT
29.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.01.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	**59.35**	**46.24**	**11.59**	**13.90**	**NT**	**66.12**	**325.96**	**12.25**	**14.61**	**NT**	**60.24**	**332.98**	**10.27**	**13.23**	**NT**	**58.84**	**334.46**	**11.26**	**13.68**	**NT**

NT: - NOT TRACEABLE IN THE SAMPLE.

Lab. Incharge (Env.)

F01(09-10)/02

Ambuja Cements Limited

Unit: Rabriyawas

Data Sheet for Ambient Air Quality Monitoring Results of Cement Plant

Period: Feb-14

Date of Sampling	At SWRP (C1)					Near Old Limestone Crusher (C2)					Old Weigh Bridge (C3)					SW End of CPP Boundary (Near Ballada Gate) (C4)				
	µg/M³					µg/M³					µg/M³					µg/M³				
	PM10	PM2.5	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO
1.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.02.2014	54.82	32.33	10.26	14.41	NT	66.32	318.33	12..34	14.31	NT	57.31	315.20	11.24	13.54	NT	65.37	320.31	12.31	14.52	NT
4.02.2014	56.11	29.87	11.64	13.39	NT	63.21	303.40	10.83	13.21	NT	56.68	311.39	11.21	13.12	NT	64.36	316.87	13.62	15.36	NT
5.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.02.2014	58.45	36.53	13.18	14.89	NT	68.41	328.26	14.61	16.51	NT	64.37	334.72	12.31	14.37	NT	66.54	326.04	14.32	16.86	NT
11.02.2014	57.24	34.27	12.14	15.42	NT	66.38	325.26	14.34	17.81	NT	63.21	328.69	13.76	15.21	NT	63.31	310.21	12.21	17.36	NT
12.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.02.2014	56.39	31.32	12.32	13.24	NT	67.93	330.13	13.21	14.36	NT	58.83	305.90	13.32	15.57	NT	64.42	315.65	14.52	16.43	NT
18.02.2014	55.52	30.17	13.44	14.36	NT	65.87	318.81	13.84	15.31	NT	59.61	311.21	14.31	16.42	NT	65.32	320.31	12.32	17.79	NT
19.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
20.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.02.2014	54.87	33.80	11.23	12.37	NT	67.32	325.15	13.87	15.51	NT	61.39	329.67	13.42	15.32	NT	62.21	307.31	13.51	17.48	NT
25.02.2014	55.12	34.45	12.65	13.41	NT	69.81	335.08	14.67	16.87	NT	59.47	309.87	14.78	16.79	NT	61.13	328.41	14.32	16.63	NT
26.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28.02.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	**56.07**	**32.84**	**12.11**	**13.94**	**NT**	**66.91**	**323.05**	**13.62**	**15.49**	**NT**	**60.11**	**318.33**	**13.04**	**15.04**	**NT**	**64.08**	**318.14**	**13.39**	**16.55**	**NT**

NT: - NOT TRACEABLE IN THE SAMPLE.

Lab. Incharge (Env.)

F01(09-10)/02

Ambuja Cements Limited

Unit: Rabriyawas

Data Sheet for Ambient Air Quality Monitoring Results of Cement Plant

Period: Mar-14

Date of Sampling	At SWRP (C1)					Near Old Limestone Crusher (C2)					Old Weigh Bridge (C3)					SW End of CPP Boundary (Near Ballada Gate) (C4)				
	µg/M³					µg/M³					µg/M³					µg/M³				
	PM10	PM2.5	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO	RPM	SPM	SO_2	NO_2	CO
1.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.03.2014	64.58	17.87	11.27	12.37	NT	68.34	332.13	12.88	14.36	NT	67.89	338.09	13.39	16.79	NT	68.49	320.53	13.88	15.36	NT
4.03.2014	67.45	20.41	10.28	11.66	NT	66.69	330.11	14.57	15.68	NT	69.43	341.77	16.53	19.82	NT	69.47	345.96	15.34	17.38	NT
5.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.03.2014	58.45	36.53	13.18	14.89	NT	75.68	367.80	15.62	17.89	NT	72.48	334.72	16.78	18.92	NT	71.23	373.56	14.32	16.86	NT
11.03.2014	57.24	34.27	15.14	15.42	NT	71.23	346.17	17.69	18.92	NT	73.45	367.98	15.46	14.56	NT	72.58	384.22	15.21	17.36	NT
12.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.03.2014	52.38	15.47	15.34	12.36	NT	75.56	367.22	14.56	16.78	NT	73.47	367.98	15.69	17.45	NT	73.25	367.88	15.33	13.26	NT
21.03.2014	55.32	20.16	13.21	13.48	NT	76.34	373.30	16.72	18.76	NT	74.53	384.86	16.45	18.39	NT	75.38	385.42	15.39	16.42	NT
22.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.03.2014	62.37	22.38	12.25	13.21	NT	75.44	374.18	17.46	18.45	NT	72.38	345.89	15.39	14.32	NT	74.32	377.46	12.36	14.37	NT
28.03.2014	66.43	21.28	13.17	12.09	NT	70.37	358.96	15.67	17.62	NT	69.57	326.78	16.38	13.27	NT	71.28	358.69	14.57	16.39	NT
29.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.03.2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	**60.53**	**23.55**	**12.98**	**13.19**	**NT**	**72.46**	**356.23**	**15.65**	**17.31**	**NT**	**71.65**	**351.01**	**15.76**	**16.69**	**NT**	**72.00**	**364.22**	**14.55**	**15.93**	**NT**

NT: - NOT TRACEABLE IN THE SAMPLE.

Lab. Incharge (Env.)

F01(09-10)/02

Annexure - III

AMBUJA CEMENTS LIMITED

UNIT – RABRIYAWAS

SWRP ANALYSIS REPORT FOR THE MONTH OF OCTOBER - 2013

S. No.	Parameters	Result
1.	pH	8.08
2.	BOD, at 27^{O}C, 3 days	22
3.	COD	86
4.	TSS	76
5.	Oil & Grease	<2.0
6.	Nitrate Nitrogen (as N)	<0.45
7.	Sulphide (as S)	<0.05

All parameters in mg/l except pH.

Lab Incharge (Env.)

AMBUJA CEMENTS LIMITED

UNIT – RABRIYAWAS

SWRP ANALYSIS REPORT FOR THE MONTH OF NOVEMBER - 2013

S. No.	Parameters	Result
1.	pH	7.68
2.	BOD, at $27^{O}C$, 3 days	24
3.	COD	82
4.	TSS	72
5.	Oil & Grease	<2.0
6.	Nitrate Nitrogen (as N)	<0.45
7.	Sulphide (as S)	<0.05

All parameters in mg/l except pH.

Lab Incharge (Env.)

AMBUJA CEMENTS LIMITED

UNIT – RABRIYAWAS

SWRP ANALYSIS REPORT FOR THE MONTH OF DECEMBER - 2013

S. No.	Parameters	Result
1.	pH	7.8
2.	BOD, at $27^{O}C$, 3 days	21
3.	COD	84
4.	TSS	74
5.	Oil & Grease	<2.0
6.	Nitrate Nitrogen (as N)	<0.45
7.	Sulphide (as S)	<0.05

All parameters in mg/l except pH.

Lab Incharge (Env.)

AMBUJA CEMENTS LIMITED

UNIT – RABRIYAWAS

SWRP ANALYSIS REPORT FOR THE MONTH OF JANUARY - 2014

S. No.	Parameters	Result
1.	pH	8.12
2.	BOD, at 27^{O}C, 3 days	24
3.	COD	78
4.	TSS	82
5.	Oil & Grease	<2.0
6.	Nitrate Nitrogen (as N)	<0.45
7.	Sulphide (as S)	<0.05

All parameters in mg/l except pH.

Lab Incharge (Env.)

AMBUJA CEMENTS LIMITED

UNIT – RABRIYAWAS

SWRP ANALYSIS REPORT FOR THE MONTH OF FEBRUARY - 2014

S. No.	Parameters	Result
1.	pH	8.32
2.	BOD, at $27^{O}C$, 3 days	28
3.	COD	84
4.	TSS	78
5.	Oil & Grease	<2.0
6.	Nitrate Nitrogen (as N)	<0.45
7.	Sulphide (as S)	<0.05

All parameters in mg/l except pH.

Lab Incharge (Env.)

AMBUJA CEMENTS LIMITED

UNIT – RABRIYAWAS

SWRP ANALYSIS REPORT FOR THE MONTH OF MARCH - 2014

S. No.	Parameters	Result
1.	pH	8.64
2.	BOD, at $27^{O}C$, 3 days	24
3.	COD	86
4.	TSS	74
5.	Oil & Grease	<2.0
6.	Nitrate Nitrogen (as N)	<0.45
7.	Sulphide (as S)	<0.05

All parameters in mg/l except pH.

Lab Incharge (Env.)

Annexure - IV

Format for filling in Project Details

1. Details of Rain Water Harvesting Structures completed (Type of structure completed, their numbers, and sizes)

DETAILS OF WATER HARVESTING STRUCTURES

Structures	Location	Catchment Area (In Hect.)	Ultimate Capacity (In M³)	Accumulated Qty. (In M³)							Year of Construction	Beneficiary Villages
				2006	2007	2008	2009	2010	2011	2012		
Cemented Dam No.-1	Kerpura	240	5,32,000	-	-	-	114480	299856	217920	595200	2008-2009	Kerpura, Rabriyawas
Cemented Dam No.-2	Kerpura	48	54320	-	-	-	22896	59971	43584	119040	2008-2009	Kerpura.
Burrow pit	Western zone (within ML)	72	443880	-	64742	82584	34344	89957	65376	178560	2005-2006	Balara,
Earthen Dam No.-3/1	Western zone (within ML)	16	33800	-	-	18352	7632	19990	14528	39680	2007-2008	Balara, Rabriyawas
Earthen Dam No.-3/2	Western zone (within ML)	4	23805	-	-	4588	1908	4998	3632	9920	2007-2008	Balara, Rabriyawas
Earthen Dam No.-4/1	Western zone (within ML)	4	113300	2740	3597	4588	1908	4998	3632	9920	2002-2003	Ras (Patan)
Earthen Dam No.-4/2	Western zone (within ML)	2	48300	1370	1798	2294	954	2499	1816	4960	2003-2004	Ras (Patan)
Earthen Dam No.-4/3	Western zone (within ML)	2	67760	1370	1798	2294	954	2499	1816	4960	2004-2005	Ras (Patan)
Earthen Dam No.-4/4	Western zone (within ML)	64	553374	-	-	-	30528	79962	58112	158720	2009-2010	Ras (Patan)
Check dam	Western zone (within ML)	150	125500	-	-	-	71550	187410	136200	372000	2009-2010	Balara
DG 4 Water Reservoir	Near DG 4	324	3,55,000	-	-	371628	15548	404806	294192	803520	2010-2011	Balara, Rabriyawas

ROOF TOP RAIN WATER HARVESTING STRUCTURES

Locations	Structures	Structure Details	Year of Construction	Catchment area
Bachelor's Hostel	Tube well – 01 no.	Diameter – 350 mm. Depth - 52 mts.	2008-2009	350.00 Sq.m.
New Type -5 (03 – Blocks)	Tube well – 01 no	Diameter – 350 mm. Depth - 52 mts.	2008-2009	825.00 Sq.m.

Annexure -V

Ambuja Cements Ltd.

Unit- Rabriyawas

Date: 03.04.2014

Greenbelt Development (Plantation) As on 31.03.2014

Plant & Colony:

S. No.	Year of Plantation*	Number of Plant Planted	Number of Plant Survived	Survival Rate (%)	Area Covered in Plantation (Hectare)
1	**1996 To2000**	33909	5526	16.30	16.00
2	2000-2001	12338	7488	60.69	15.25
3	2001-2002	11713	9364	79.94	13.50
4	2002-2003	6249	5122	81.96	7.25
5	2003-2004	7270	6058	83.33	7.50
6	2004-2005	5516	4728	85.71	3.00
7	2005-2006	5774	4814	83.37	1.50
8	2006-2007	6951	6121	88.06	4.00
9	2007-2008	5740	5007	87.23	5.00
10	2008-2009	13757	12352	89.79	7.00
11	2009-2010	9430	8302	88.04	6.00
12	2010-2011	8067	7271	90.13	5.00
13	2011-2012	13040	11153	85.53	10.00
14	**2012-2013**	**7819**	**7220**	**92.34**	**5.00**
15	**2013-2014**	**9675**	**8451**	**87.34**	**4.50**
	Total	**157248**	**108977**	---	**110.50**

Mines Ras-I:

S. No.	Year of Plantation *	Number of Plant Planted	Number of Plant Survived	Survival Rate (%)	Area Covered in Plantation (Hectare)
1	**2013-2014**	**4908**	**4702**	**95.80**	**3.25**

Mines Ras-II:

S. No.	Year of Plantation *	Number of Plant Planted	Number of Plant Survived	Survival Rate (%)	Area Covered in Plantation (Hectare)
1	**1996 To 2000**	10385	1035	9.97	11.00
2	2000-2001	6240	2978	47.72	4.50
3	2001-2002	8179	6132	74.97	4.50
4	2002-2003	6174	4572	74.05	3.50
5	2003-2004	10858	8457	77.88	5.45
6	2004-2005	10900	9132	83.78	4.50
7	2005-2006	11938	9810	82.17	4.00
8	2006-2007	6200	5268	84.97	3.50
9	2007-2008	8200	6971	85.01	6.50
10	2008-2009	30700	26228	85.43	23.00
11	2009-2010	13700	11584	84.55	5.00
12	2010-2011	10522	9051	86.02	4.00
13	2011-2012	13513	11367	84.12	4.00
14	**2012-2013**	**10515**	**9172**	**87.22**	**3.50**
15	**2013-2014**	**9648**	**9060**	**93.90**	**4.00**
	Total	**167672**	**131179**	---	**90.95**

* Year of plantation considered **July to June**.

JITESH DARJEE
Officer (Horticulture)

VINOD CHOUDHARY
Dy. Manager (Mines)