

# Ambuja Cement

Registered A/D

ACL/EMD/F-24

Date: 15/04/2021

To,

**The Director  
Ministry of Environment, Forests & Climate Change  
Regional Office (Jaipur)  
A 209-218, Aranya Bhawan, Mahatma Gandhi Road,  
Jhalana Institutional Area, Jaipur (Rajasthan)**

**Subject:** Half-yearly Condition wise Compliance report of Environmental Clearance for 3.6  
MTPA Ras-II Limestone Mines

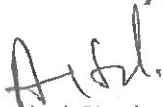
Dear Sir,

This has reference to the Environmental Clearance Letter No. J-11015/148/2006-IA.II (M) dated 10.10.2007. We are submitting herewith the half-yearly compliance and analysis reports for Stack Emission, Ambient Air Quality and Water & Waste water from **OCTOBER 2020 to MARCH 2021.**

Hope you will find the same in order.

Yours faithfully,

For **Ambuja Cements Limited**  
**Unit: Rabriyawas**



Arvind Singh  
Sr. Manager (Environment)

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

**CC:** RPCB, 4, Institutional Area, Jhalana Doongri, Jaipur

&

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](http://www.ambujacement.com)

(Registered Office: PO – Ambujanagar, Taluka – Kodinar, Dist. – Gir Somnath (Guj.) 362 715)



**AMBUJA CEMENTS LIMITED  
UNIT – RABRIYAWAS**

**Compliance Report of Environmental Clearance (No. J-11015/148/2006-IA.II (M) 10.10.2007) for 3.6 MTPA Ras II Limestone Mines M/s Ambuja Cements Ltd., Unit: Rabriyawas, Pali, Rajasthan**

**Period: OCTOBER 2020 to MARCH 2021**

Sr. No.	Condition	Compliance Status
<b>A. Specific Conditions:</b>		
(i)	Environmental Clearance is granted subject to final order of Hon'ble Supreme Court of India in Contempt Petition (C) 412/2004 in IA No. 833 in Writ Petition (C) No. 202 of 1995, as may be applicable to this project.	Noted.
(ii)	All the conditioned stipulated by the State Pollution Control Board in their NOC should be effectively implemented.	Noted & being Complied. Compliance report is being sent regularly to State Pollution Control Board and their Regional Offices
(iii)	Topsoil, if any, shall be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitate on of mined out areas.	As per Mine Plan. <i>This Mining Plan has been approved Vide letter No.584(4)(3)(1547)/2014/RCM-AJM Dt.29.12.15 under MCDR 1988/MCR1960.</i>
(iv)	The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operation	There is no perennial water body passing through Mines.
(v)	The inter burden and other waste generated shall be stacked at earmarked dump site(s) only and should not be kept active for long period. The total height of dump shall not exceed 20m in two terraces of 10m each and the overall slope of the dump shall be maintained to 28°. The backfilling shall start from the 10 <sup>th</sup> year onwards. The inter burden dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self –sustaining. Compliance status should be submitted to the Ministry of Environment & Forest and its Regional office, Lucknow on six monthly basis.	Noted and being complied as per mining plan. The dumping of overburden has been done in only specified area earmarked for dumping as per approved Mining plan as proved non mineralized zone. Well planned green cover strategy is being followed & full care is taken for proper growth of plantation on slopes. Six monthly compliance reports are being regularly submitted at MoEF&CC Regional Office, Lucknow, RPCB Head Office, Jaipur & Regional Office Pali with reference to Ministry letter No. F. No. J-11011/54/2010-IA-II (I) dated 29th March' 2012 for our Cement Plant, Captive Power Plant (15 & 18 MW CPP) & Limestone Mines (Ras-I & Ras-II) and J-11015/148/2006-IA.II (M) dated 10.10.2007 for Ras-II Limestone Mines.
(vi)	The void left unfilled in an area of 48.8 ha shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plant at on done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the	The unit has constructed Anicuts and Bunds and converted into water body. Wherever suitable site is identified Anicuts and Bunds will be constructed further.

	water body. Peripheral fencing shall be carried out along the excavated area.	
(vii)	<p>Catch drain and siltation ponds of appropriate size should be constructed for the working pit, inter burden and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, green belt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly. Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and inter burden dumps and sump capacity should be designed keeping 50 % safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sumps capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de - silted at regular intervals.</p>	<p>Noted, Retaining walls &amp; Siltation ponds near overburden dumps have constructed as per detail:- Western Ridge</p> <p>(1) 500m x 1.0m x 1.0m &amp; Siltation pond about 20m x 25m x 1.0m</p> <p>(2) Retaining wall – 100m x 1m x 1m, Siltation Pond – 30m x 10m x 1m</p> <p>(3) Retaining wall – 100m x 1m along the road, Siltation Pond – 15m x 5m x 3m</p> <p>(4) Retaining wall – 100m x 3m x 5m, Siltation Pond – 20m x 10m x 5m</p> <p>(5) Eastern Ridge counters along road side acting as retaining wall size – 50m x 3m.</p>
(viii)	Dimension of the retaining wall at the toe of inter burden dumps and inter burden benches within the mine to check run-off and siltation should be based on the rain fall data.	In and around we have made Garland drains connected to 17 nos. of siltation ponds. 10 nos. of retaining wall have made around the overburden dumps.
(ix)	Plantation shall be raised in area of 203.12 ha including a green belt of adequate width by planting the native species around ML area, over burden dumps, around water body, roads, etc. in consultation with the local DFO / Agriculture Department. At least 1500 trees per year shall be planted with a tree density of 2000 trees per ha.	<p>Being Complied.</p> <p>240907 Nos. of trees have been planted in the Ras-II mines and area covered 126.00 ha. Further an area of 52 ha. within the lease area has been earmarked for conservation of flora &amp; fauna.</p> <p>26218 Nos of tree have been planted in Ras-I mines covering 19.70 hectare land.</p> <p>199687 nos of tree have been planted in the Plant &amp; Township area so far covering 143.00 hectare of land.</p> <p>The different species planted are Cassia Siamea, Aqzusia, Neem, Pipal, Babool, Sisham, etc. <b>(Annexure IV)</b></p>
(x)	Regular monitoring ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometer at suitable locations by the project proponent in and around the project area in consultation with Regional Director, Central Ground water Board. The frequency of monitoring should be four times a year – pre-monsoon (April / May), monsoon (August), post-monsoon	<p>Water level and quality monitoring has been done accordance with stipulated guidelines and reports are being submitted regularly. Water samples are being analyzed from open wells in and around core -zone.</p> <p>Ground water quality analysis report is enclosed.</p> <p><b>(Annexure V)</b></p>

	(November), and Winter (January). Data thus collected should be sent at regular intervals to the Ministry of Environment & Forest and its Regional office, Lucknow, Central Ground water Authority and Central Ground water Board, Western Region, Jaipur.	
(xi)	Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, Central Ground water Board.	Being complied, Two no. of the cemented dam have been constructed in the mine lease area and several check dams, kadins also constructed in the surrounding buffer area with help of Ambuja Cement Foundations for rainwater harvesting as well as ground water recharges. (please refer <b>Annexure III</b> )
(xii)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground water Board.	Two no. of the cemented dam have been constructed in the mine lease area and several check dams, kadins also constructed in the surrounding buffer area with help of Ambuja Cement Foundations for rainwater harvesting as well as ground water recharges. The detail of catchment's area as well as storage capacity @ of rainfall is 390 mm. ( <b>Annexure III</b> )
(xiii)	The project proponent shall take appropriate mitigative measures to prevent pollution of Lilri River in consultation with State Pollution Control Board.	No effluent generated from operation of mines and domestic effluent is being disposed in septic tank soap pit. Hence there is no any effluent discharge to any main water course.
(xiv)	Permission from the competent authority should be obtained for withdrawal ground water required for the project.	Complied. Our average water consumption in the plant is around 2,000 m <sup>3</sup> /day. Permission from CGWA, New Delhi @ 2400 KLD has been obtained vide letter No. 21-4(5)/WR/CGWA/2005-1188 dated 15/10/2008 and now open ended permission has been given by CGWA vide letter no. 21-4(5) WR / CGWA / 2005 - 627, dated 24.05.2011 with implementation of compliance conditions. Renewal of the same has already been applied vide application no. 15.10.2015
(xv)	Blasting operation should be carried out only during daytime. Controlled should be practiced. The mitigative measures for control of ground vibration and to arrest fly rocks and boulders should be implemented.	Complied Blasting operation carried out only daytime. The peak particle velocity and air blast are well within the safe limits of prescribed standards as laid down in the Circular issued by the Directorate General of Mines Safety, Govt. of India. To control ground vibration, air blast & fly rock, blasting is carried out by NONEL (non electric detonating) system. Ground vibration monitoring is being carried out.
(xvi)	Drills shall either be operated with dust extractors with water injection system.	Being complied, drilling is being done by wet process.

(xvii)	Vehicular emission should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	Complied. Vehicular emission monitoring of Mines HEM is being periodically carried out and emissions are under control.
(xviii)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment & Forest and its Regional office, Lucknow.	Digital Processing of the entire lease area was done in 2018.
(xix)	Regular water sprinkling should be carried out in critical areas prone to air pollution and having high level of SPM and RPM such as haul road, loading and unloading points, transfer points and other vulnerable areas. It should be ensured that the Ambient Air quality parameters confirm to the norms prescribed by the Central Pollution Control Board in this regards.	Regular water sprinkling is done on the mine haul roads as well as near the faces in order to suppress the fugitive emissions generated due to the movements of vehicles. Effective water sprinkling system has been provided in crusher hopper and screening hopper. Regular ambient air quality monitoring is being done and results are well within the stipulated norms. The check the ambient air quality status third party (MoEF approved laboratory) has been engaged.
(xx)	Crusher should be operated with high efficiency bag filters. The screening plant and all transfer and loading & unloading points should be provided with water spraying system and equipped with dust collector / extraction system.	Bag filters has been provided at all the transfer point including crusher hopper and screening hopper and effective water sprinkling system has been provided.
(xxi)	Sewage treatment plant should be installed for colony. ETP should also be provided for workshop and mineral separation plant wastewater.	STP of 160 and 200 m <sup>3</sup> /day capacity operating in Colony. Workshop waste water being collected into oil skimming pit and further reused. However if surplus water is present it will be utilized for green belt development.
(xxii)	Consent to operate should be obtained from SPCB before starting enhanced production from the mine.	Noted. The RPCB has granted Consent to operate vide letter No. F(Mines)/Pali(Jaitaran)/4(1)/2009-2010/6457-6461 dated 02.12.2014 and renewal of CTO has obtained vide no. F(Mines)/Pali(Jaitaran)/80(1)/2015-2016/7985-7990 dated 16/02/2016. Renewal application submitted vide our letter no. ACL/EMD/F-13 dated 27.07.2018 (Online Application No. 220240) and it is under active consideration with Board.
(xxiii)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forest 5 years in advanced of final mine	Noted.

	closure, for approval.	
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#### B. General Conditions

(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forest.	Noted.
(ii)	No change in the calendar plan including excavation, quantum of limestone and waste should be made.	Noted.
(iii)	Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department.	Implementation status as per the suggestion given by Dy. Conservator of Forest, Pali. Further, we have been conducted bio-diversity study by M/s Vikram University, Ujjain and their recommendation is being implemented.
(iv)	Four ambient air quality - monitoring stations should be established in the core zone as well as buffer zone for RPM, SPM, SO <sub>2</sub> and NO <sub>x</sub> monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Data on ambient air quality (RPM, SPM, SO <sub>2</sub> and NO <sub>x</sub> ) should be regularly submitted to the Ministry including its Regional Office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six month.	Noted and complied. Ambient air quality - monitoring report is enclosed ( <b>Annexure- I</b> ) In respect to comply of new National Ambient Air Quality Standards Continuous Ambient Air Quality Monitor station have installed at SWRP location, Near Mines Office & Near HR Office at Plant Gate. One CAAQM Station has been installed at Ras-I mines. Data on ambient air quality (RPM, SPM, SO <sub>2</sub> and NO <sub>x</sub> ) is being regularly submitted to the Ministry including its Regional Office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board on monthly/quarterly/six monthly basis. Online data of Ambient Air Quality is being also sent to RSPCB & CPCB website.
(v)	Fugitive dust emissions from all the source should be controlled regularly. Water spraying arrangements on haul roads, loading & unloading and at transfer points should be provided and properly maintained.	Noted and complied. Water is sprinkled continuously in the mine haul roads as well as near the faces in order to suppress the fugitive emissions generated due to the movements of vehicles.  Effective water sprinkling system has been provided in crusher hopper and screening hopper.
(vi)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operation of HEMM etc. should be provided with ear plugs/ muffs.	Regular monitoring is in progress. Air and noise monitored in and around core zone. The noise levels are well within the limits, however ear plugs / ear muffs have been provided to operators. Mines HEM noise level report is enclosed ( <b>Annexure II</b> ).

(vii)	Industrial wastewater (workshop and waste water from the mine) should be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Being collected into oil skimming pit and further reused. However if surplus water is present it will be utilized for green belt development Please refer analysis report as enclosed as in <b>Annexure I</b>
(viii)	Personal working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational Health Surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	PPEs provided.  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.
(ix)	The project authorities should inform to the Regional Office located at Lucknow 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
(x)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Lucknow.	Noted.
(xi)	The Regional Office of this Ministry located at Lucknow shall monitor compliance of stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	Noted
(xii)	The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment & Forest, its Regional office, Lucknow, Central State Pollution Control Board and State Pollution Control Board.	Noted & complied A six monthly compliance report is being submitted regularly to concern authorities in stipulated time frame.
(xiii)	A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, was received while processing the proposal.	Noted



(xiv)	State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office / Tehsildar's office for 30 days.	-
(xv)	The Project authorities should be advertised at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the date of 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 also at website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . and a copy of the same should be forwarded to the Regional office of this Ministry located at Lucknow.	Complied and published in newspapers on 17.10.07 in Danik Bhaskar and Rajasthan Patrika.

*Arvind*

Arvind Singh  
Sr. Manager (Environment)



AMBIENT & HEM NOISE MONITORING OF MINES MACHINERY (RAS-II) FOR  
THE MONTHS OF MARCH '2021

**1. Ambient Noise Level Monitoring:**

S. No.	Location	Date of Monitoring	Noise Level in dB	
			Day	Night
1	At Mines Office	10.03.2021	56	52
2	North End of Eastern Ridge	10.03.2021	69	54
3	South End of Western Ridge	10.03.2021	70	54
4	At L/S Crushing & Screening CCR	10.03.2021	66	56

**2. Noise Monitoring Report of Mines Machinery:**

S. No	Date	Machine	Condition	Noise (in dB)	
				Inside	Outside
1	11.03.2021	L&T CK-300 With Rock breaker	Idle with engine 'ON'	50	74
2	11.03.2021	Drill Machine Atlas copco D-40	-do-	-	66
3	11.03.2021	Drill Machine IR CM-341	-do-	-	68
4	11.03.2021	Soil Compactor L&T 1107D	-do-	54	70
5	11.03.2021	CAT 374FL Excavator	-do-	56	69
6	11.03.2021	CAT 772G Dumper	-do-	52	68
7	11.03.2021	Crusher	Running	-	70

*H. Sub.*  
Lab. Incharge (Env.)  
F05 (09-10)/03

**AMBIENT & HEM NOISE MONITORING OF MINES MACHINERY (RAS-II) FOR  
THE MONTHS OF FEBRUARY '2021**

**1. Ambient Noise Level Monitoring:**

S. No.	Location	Date of Monitoring	Noise Level in dB	
			Day	Night
1	At Mines Office	09.02.2021	52	50
2	North End of Eastern Ridge	09.02.2021	68	52
3	South End of Western Ridge	09.02.2021	70	54
4	At L/S Crushing & Screening CCR	09.02.2021	66	53

**2. Noise Monitoring Report of Mines Machinery:**

S. No	Date	Machine	Condition	Noise (in dB)	
				Inside	Outside
1	10.02.2021	L&T CK-300 With Rock breaker	Idle with engine 'ON'	50	72
2	10.02.2021	Drill Machine Atlas copco D-40	-do-	-	68
3	10.02.2021	Drill Machine IR CM-341	-do-	-	69
4	10.02.2021	Soil Compactor L&T 1107D	-do-	54	70
5	10.02.2021	CAT 374FL Excavator	-do-	55	72
6	10.02.2021	CAT 772G Dumper	-do-	54	68
7	10.02.2021	Crusher	Running	-	70

*A. S. S.*  
Lab. Incharge (Env.)  
F05 (09-10)/03

AMBIENT & HEM NOISE MONITORING OF MINES MACHINERY (RAS-II) FOR  
THE MONTHS OF JANUARY '2021

**1. Ambient Noise Level Monitoring:**

S. No.	Location	Date of Monitoring	Noise Level in dB	
			Day	Night
1	At Mines Office	12.01.2021	52	50
2	North End of Eastern Ridge	12.01.2021	67	54
3	South End of Western Ridge	12.01.2021	68	54
4	At L/S Crushing & Screening CCR	12.01.2021	68	54

**2. Noise Monitoring Report of Mines Machinery:**

S. No	Date	Machine	Condition	Noise (in dB)	
				Inside	Outside
1	13.01.2021	L&T CK-300 With Rock breaker	Idle with engine 'ON'	50	72
2	13.01.2021	Drill Machine Atlas copco D-40	-do-	-	67
3	13.01.2021	Drill Machine IR CM-341	-do-	-	68
4	13.01.2021	Soil Compactor L&T 1107D	-do-	55	69
5	13.01.2021	CAT 374FL Excavator	-do-	56	70
6	13.01.2021	CAT 772G Dumper	-do-	54	68
7	13.01.2021	Crusher	Running	-	70

*f. Abdul.*  
Lab. Incharge (Env.)  
F05 (09-10)/03

**AMBIENT & HEM NOISE MONITORING OF MINES MACHINERY (RAS-II) FOR  
THE MONTHS OF DECEMBER '2020**

**1. Ambient Noise Level Monitoring:**

S. No.	Location	Date of Monitoring	Noise Level in dB	
			Day	Night
1	At Mines Office	16.12.2020	55	50
2	North End of Eastern Ridge	16.12.2020	69	52
3	South End of Western Ridge	16.12.2020	70	53
4	At L/S Crushing & Screening CCR	16.12.2020	65	54

**2. Noise Monitoring Report of Mines Machinery:**

S. No	Date	Machine	Condition	Noise (in dB)	
				Inside	Outside
1	17.12.2020	L&T CK-300 With Rock breaker	Idle with engine 'ON'	49	74
2	17.12.2020	Drill Machine Atlas copco D-40	-do-	-	66
3	17.12.2020	Drill Machine IR CM-341	-do-	-	68
4	17.12.2020	Soil Compactor L&T 1107D	-do-	54	70
5	17.12.2020	CAT 374FL Excavator	-do-	54	69
6	17.12.2020	CAT 772G Dumper	-do-	54	68
7	17.12.2020	Crusher	Running	-	70

*AW.*  
Lab. Incharge (Env.)  
F05 (09-10)/03

**AMBIENT & HEM NOISE MONITORING OF MINES MACHINERY (RAS-II) FOR  
THE MONTHS OF NOVEMBER '2020**

**1. Ambient Noise Level Monitoring:**

S. No.	Location	Date of Monitoring	Noise Level in dB	
			Day	Night
1	At Mines Office	16.11.2020	53	50
2	North End of Eastern Ridge	16.11.2020	69	52
3	South End of Western Ridge	16.11.2020	72	54
4	At L/S Crushing & Screening CCR	16.11.2020	65	54

**2. Noise Monitoring Report of Mines Machinery:**

S. No	Date	Machine	Condition	Noise (in dB)	
				Inside	Outside
1	17.11.2020	L&T CK-300 With Rock breaker	Idle with engine 'ON'	50	75
2	17.11.2020	Drill Machine Atlas copco D-40	-do-	-	69
3	17.11.2020	Drill Machine IR CM-341	-do-	-	68
4	17.11.2020	Soil Compactor L&T 1107D	-do-	52	72
5	17.11.2020	CAT 374FL Excavator	-do-	56	72
6	17.11.2020	CAT 772G Dumper	-do-	54	68
7	17.11.2020	Crusher	Running	-	70

*Asul*  
Lab. Incharge (Env.)  
F05 (09-10)/03

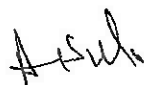
**AMBIENT & HEM NOISE MONITORING OF MINES MACHINERY (RAS-II) FOR  
THE MONTHS OF OCTOBER '2020**

**1. Ambient Noise Level Monitoring:**

S. No.	Location	Date of Monitoring	Noise Level in dB	
			Day	Night
1	At Mines Office	16.10.2020	54	49
2	North End of Eastern Ridge	16.10.2020	68	52
3	South End of Western Ridge	16.10.2020	70	54
4	At L/S Crushing & Screening CCR	16.10.2020	66	52

**2. Noise Monitoring Report of Mines Machinery:**

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5	17.10.2020	CAT 374FL Excavator	-do-	55	70
6	17.10.2020	CAT 772G Dumper	-do-	54	68
7	17.10.2020	Crusher	Running	-	70

  
Lab. Incharge (Env.)  
F05 (09-10)/03



**Statement Showing Quarterly Report on Monitoring of Mine Workshop Treated Waste Water & Other Environmental Parameters for the Quarter Ending March 2021**

**Ajmer Region**

Jan-21

S. No	Name of Mine & Mineral	Name of Owner	District /State	Taluka / Village	Location	SPM ( $\mu\text{g} / \text{m}^3$ )			Gases ( $\mu\text{g} / \text{m}^3$ )			Water quality Parameters observed (mg/l except pH)	
						<10 $\mu$	>10 $\mu$	TPM	SO <sub>2</sub>	NO <sub>2</sub>	CO	pH	TSS
1	Limestone Mines Ras-II	Mr. Neeraj Akhoury	Pali, Rajasthan	Jaitaran, Rabriyawas	Mines Office (M1)	37.8	175.2	213.0	7.0	13.5	NT	7.7	
2					North end of Eastern Ridge (M2)	62.8	201.3	264.1	7.5	13.6	NT		66.0
3					South end of Western Ridge (M3)	67.8	219.9	287.7	7.5	13.8	NT		58.0
4					At L/S Crushing & Screening CCR (M4)	52.9	220.7	273.6	7.0	13.6	NT		17.0
5												Oil & Grease	<2.0

Feb-21

S. No	Name of Mine & Mineral	Name of Owner	District /State	Taluka / Village	Location	SPM ( $\mu\text{g} / \text{m}^3$ )			Gases ( $\mu\text{g} / \text{m}^3$ )			Water quality Parameters observed (mg/l except pH)	
						<10 $\mu$	>10 $\mu$	TPM	SO <sub>2</sub>	NO <sub>2</sub>	CO	pH	TSS
1	Limestone Mines Ras-II	Mr. Neeraj Akhoury	Pali, Rajasthan	Jaitaran, Rabriyawas	Mines Office (M1)	38.2	176.2	214.4	7.0	13.5	NT	7.8	
2					North end of Eastern Ridge (M2)	63.0	202.0	265.0	7.5	14.0	NT		68.0
3					South end of Western Ridge (M3)	66.7	212.9	279.6	7.5	13.8	NT		55.0
4					At L/S Crushing & Screening CCR (M4)	60.4	219.6	280.0	7.5	14.0	NT		17.0
5												Oil & Grease	<2.0

Mar-21

S. No	Name of Mine & Mineral	Name of Owner	District /State	Taluka / Village	Location	SPM ( $\mu\text{g} / \text{m}^3$ )			Gases ( $\mu\text{g} / \text{m}^3$ )			Water quality Parameters observed (mg/l except pH)	
						<10 $\mu$	>10 $\mu$	TPM	SO <sub>2</sub>	NO <sub>2</sub>	CO	pH	TSS
1	Limestone Mines Ras-II	Mr. Neeraj Akhoury	Pali, Rajasthan	Jaitaran, Rabriyawas	Mines Office (M1)	39.0	177.8	216.8	7.0	13.5	NT	7.5	
2					North end of Eastern Ridge (M2)	67.3	216.0	283.3	7.5	13.8	NT		66.0
3					South end of Western Ridge (M3)	69.0	220.0	289.0	7.5	13.9	NT		57.0
4					At L/S Crushing & Screening CCR (M4)	62.5	222.3	284.8	7.5	13.5	NT		17.0
5												Oil & Grease	<2.0

Section Incharge (Env.)

"We are Environmentally and Socially Responsible"

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Statement Showing Quarterly Report on Monitoring of Mine Workshop Treated Waste Water & Other Environmental Parameters for the Quarter Ending December 2020  
Almer Region

Oct-20

S. No	Name of Mine & Mineral	Name of Owner	District /State	Taluka / Village	Location	SPM ( $\mu\text{g} / \text{m}^3$ )			Gases ( $\mu\text{g} / \text{m}^3$ )			Water quality Parameters observed (mg/l except pH)	Re
1	Limestone Mines Ras-II	Mr. Neeraj Akhoury	Pali, Rajasthan	Jaitaran, Rabriyawas	Mines Office (M1)	<10 $\mu$	>10 $\mu$	TPM	SO <sub>2</sub>	NO <sub>2</sub>	CO	pH	7.8
2					North end of Eastern Ridge (M2)	63.6	202.4	266.0	7.5	13.8	NT	TSS	68.0
3					South end of Western Ridge (M3)	68.1	220.0	288.1	8.0	13.8	NT	COD	55.0
4					At L/S Crushing & Screening CCR (M4)	50.2	221.9	272.1	7.0	13.7	NT	BOD	18.0
5												Oil & Grease	<2.0

Nov-20

S. No	Name of Mine & Mineral	Name of Owner	District /State	Taluka / Village	Location	SPM ( $\mu\text{g} / \text{m}^3$ )			Gases ( $\mu\text{g} / \text{m}^3$ )			Water quality Parameters observed (mg/l except pH)	Re
1	Limestone Mines Ras-II	Mr. Neeraj Akhoury	Pali, Rajasthan	Jaitaran, Rabriyawas	Mines Office (M1)	<10 $\mu$	>10 $\mu$	TPM	SO <sub>2</sub>	NO <sub>2</sub>	CO	pH	7.7
2					North end of Eastern Ridge (M2)	61.2	196.2	257.4	7.5	13.8	NT	TSS	67.0
3					South end of Western Ridge (M3)	67.6	211.2	278.8	8.0	13.9	NT	COD	54.0
4					At L/S Crushing & Screening CCR (M4)	63.4	224.5	287.9	8.0	14.0	NT	BOD	18.0
5												Oil & Grease	<2.0

Dec-20

S. No	Name of Mine & Mineral	Name of Owner	District /State	Taluka / Village	Location	SPM ( $\mu\text{g} / \text{m}^3$ )			Gases ( $\mu\text{g} / \text{m}^3$ )			Water quality Parameters observed (mg/l except pH)	Re
1	Limestone Mines Ras-II	Mr. Neeraj Akhoury	Pali, Rajasthan	Jaitaran, Rabriyawas	Mines Office (M1)	<10 $\mu$	>10 $\mu$	TPM	SO <sub>2</sub>	NO <sub>2</sub>	CO	pH	7.8
2					North end of Eastern Ridge (M2)	66.3	232.5	298.8	7.5	14.0	NT	TSS	69.0
3					South end of Western Ridge (M3)	68.7	245.6	314.3	8.0	13.9	NT	COD	55.0
4					At L/S Crushing & Screening CCR (M4)	67.9	280.5	348.4	8.0	14.0	NT	BOD	17.5
5												Oil & Grease	<2.0

Section Incharge (Env.)

"We are Environmentally and Socially Responsible"

Annexure

**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 M <sup>3</sup> )	Rainwater quantity available (in M <sup>3</sup> ) based on rainfall received in following year							Year of Construction	Beneficiary Villages
				2010	2011	2012	2013	2014	2015	2016		
Cemented Dam No.-1	Kerpura	240	5,32,000	299856	217920	595200	425280	432000	312960	796800	2008-2009	Kerpura, Rabriyawas
Cemented Dam No.-2	Kerpura	48	54320	59971	43584	119040	85056	86400	62592	159360	2008-2009	Kerpura.
Burrow pit	Western zone (within ML)	72	443880	89957	65376	178560	127584	129600	93888	239040	2005-2006	Balara,
Earthen Dam No.-3/1	Western zone (within ML)	16	33800	19990	14528	39680	28352	28800	20864	53120	2007-2008	Balara, Rabriyawas
Earthen Dam No.-3/2	Western zone (within ML)	4	23805	4998	3632	9920	7088	7200	5216	13280	2007-2008	Balara, Rabriyawas
Earthen Dam No.-4/1	Western zone (within ML)	4	113300	4998	3632	9920	7088	7200	5216	13280	2002-2003	Ras (Patan)
Earthen Dam No.-4/2	Western zone (within ML)	2	48300	2499	1816	4960	3544	3600	2608	6640	2003-2004	Ras (Patan)
Earthen Dam No.-4/3	Western zone (within ML)	2	67760	2499	1816	4960	3544	3600	2608	6640	2004-2005	Ras (Patan)
Earthen Dam No.-4/4	Western zone (within ML)	64	553374	79962	58112	158720	113408	115200	83456	212480	2009-2010	Ras (Patan)
Check dam	Western zone (within ML)	150	125500	187410	136200	372000	265800	270000	195600	498000	2009-2010	Balara
DG 4 Water Reservoir	Near DG 4	324	3,55,000	404806	294192	803520	574128	583200	422496	1075680	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.

**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 M <sup>3</sup> )	Rainwater quantity available (in M <sup>3</sup> ) based on rainfall received in following year							Year of Construction	Beneficiary Villages
				2017	2018	2019	2020	2021	2022	2023		
Cemented Dam No.-1	Kerpura	240	5,32,000	461760	410880	783360	650880	-	-	-	2008-2009	Kerpura, Rabriyawas
Cemented Dam No.-2	Kerpura	48	54320	92352	82176	156672	130176	-	-	-	2008-2009	Kerpura.
Burrow pit	Western zone (within ML)	72	443880	138528	123264	235008	195264	-	-	-	2005-2006	Balara,
Earthen Dam No.-3/1	Western zone (within ML)	16	33800	30784	27392	52224	43392	-	-	-	2007-2008	Balara, Rabriyawas
Earthen Dam No.-3/2	Western zone (within ML)	4	23805	7696	6848	13056	10848	-	-	-	2007-2008	Balara, Rabriyawas
Earthen Dam No.-4/1	Western zone (within ML)	4	113300	7696	6848	13056	10848	-	-	-	2002-2003	Ras (Patan)
Earthen Dam No.-4/2	Western zone (within ML)	2	48300	3948	3424	6528	5424	-	-	-	2003-2004	Ras (Patan)
Earthen Dam No.-4/3	Western zone (within ML)	2	67760	3848	3424	6528	5424	-	-	-	2004-2005	Ras (Patan)
Earthen Dam No.-4/4	Western zone (within ML)	64	553374	123136	109568	208896	173568	-	-	-	2009-2010	Ras (Patan)
Check dam	Western zone (within ML)	150	125500	288600	256800	489600	406800	-	-	-	2009-2010	Balara
DG 4 Water Reservoir	Near DG 4	324	3,55,000	223376	154688	1057536	878688	-	-	-	2010-2011	Balara, Rabriyawas

**Ambuja Cements Limited**  
**Unit: Rabriyawas**

Date: 01.10.2020

**Greenbelt Development (Plantation) As on 30.09.2020**

**Plant & Colony:**

S. No.	Year of Plantation*	Number of Plant Planted	Number of Plant Survived	Survival Rate (Avg) (%)**	Area Covered in Plantation (Hectare)
1.	1996-2000	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	8678	92.02	6.00
12.	2010-2011	7708	7560	95.74	5.00
13.	2011-2012	13028	11752	90.21	10.00
14.	2012-2013	7819	7220	92.34	5.0
15.	2013-2014	9667	8556	85.86	5.00
16.	2014-2015	12110	10753	88.79	9.25
17.	2015-2016	11513	10157	88.22	8.75
18.	2016-2017	2000	1810	90.50	1.5
19.	2017-2018	5000	4800	96.00	4.0
20.	2018-2019	5000	4853	97.00	3.5
21.	2019-2020	3500	3395	97.00	2.5
22.	2020-2021	3695	3621	98.00	2.5
<b>Total</b>		<b>199687</b>	<b>149735</b>	<b>&gt; 84.00</b>	<b>143.00</b>

\* Year of plantation considered July to June.

\*\* Calculated as average of all above years (%)

  
 Dr. Satish Saini  
 Dy. Manager – Environment

**Ambuja Cements Ltd.**  
**Unit- Rabriyawas**

**Greenbelt Development (Plantation) as on 30.09.2020**

**Mines Ras-I:**

Date : 01.10.2020

S. No.	Year of Plantation *	Number of Plant Planted	Number of Plant Survived	Survival Rate** (Avg) (%)	Area Covered in Plantation (Hectare)
1	2013-14	4908	587	11.96	3.25
2	2014-15	5100	3430	67.25	5.50
3	2015-16	6000	3685	61.42	4.35
4	2016-17	1200	1012	84.33	1.00
5	2017-18	2500	2410	96.40	1.60
6	2018-19	1700	1683	99.00	1.00
7	2019-20	3000	2940	98.00	2.00
8	2020-21	1810	1773	98.00	1.00
	<b>Total</b>	<b>26218</b>	<b>17520</b>	<b>74.05</b>	<b>19.7</b>

**Mines Ras-II:**

S. No.	Year of Plantation *	Number of Plant Planted	Number of Plant Survived	Survival Rate** (Avg) (%)	Area Covered in Plantation (Hectare)
1	1996 To 2000	10385	510	4.91	11.00
2	2000-2010	113089	49477	43.75	64.45
3	2010-2011	10522	6915	65.72	3.50
4	2011-2012	13513	9500	70.30	4.00
5	2012-2013	10515	7818	74.35	3.50
6	2013-2014	9648	7130	73.90	4.00
7	2014-2015	16200	12117	74.80	5.00
8	2015-2016	7500	6146	81.95	4.80
9	2016-2017	6000	5197	86.62	4.00
10	2017-2018	10500	9392	89.45	5.25
11	2018-2019	11800	11210	95.00	6.00
12	2019-2020	13000	12740	98.00	6.00
13	2020-2021	8235	8070	98.00	4.50
	<b>Total</b>	<b>240907</b>	<b>146222</b>	<b>71.56</b>	<b>126.00</b>

\* Year of plantation considered July to June.

\*\* Calculated as average of all above years (%)

  
 Dr. Satish Saini  
 Dy. Manager - Environment

**Ambuja Cements Limited**  
**Unit-Rabriyawas**

Month	19/05/2020			Season	Pre-Monsoon	
S. No	Paramenters	Unit	Loaction			
			Kerapura	Patan Village	Rabriyawas	ACL Colony
1	pH		7.86	7.65	7.88	7.64
2	Total Dissolved Solids	mg/l	555	522	642	602
3	T. Hardness (as CaCO3)	mg/l	358	369	541	448
4	Ca Hardness (as CaCO3)	mg/l	46	38	36	32
5	Calcium (as Ca)	mg/l	262	260	268	276
6	T. Alkalinity (as CaCO3)	mg/l	62	65	60	68
7	Sodium (as Na)	mg/l	20	20	18	20
8	Chloride (as Cl)	mg/l	142	128	148	138
9	Fluoride (as F)	mg/l	1.08	1.44	1.40	1.30
10	Turbidity	NTU	11.12	16.54	18.56	11.56
11	Potassium (as K)	mg/l	11.20	10.56	11.89	10.56
12	Magnesium (as Mg)	mg/l	5.88	5.10	7.88	7.88

Month	18/09/2020			Season	Post-Monsoon	
S. No	Paramenters	Unit	Loaction			
			Kerapura	Patan Village	Rabriyawas	ACL Colony
1	pH		7.77	7.58	7.88	7.56
2	Total Dissolved Solids	mg/l	537	518	667	622
3	T. Hardness (as CaCO3)	mg/l	362	378	486	456
4	Ca Hardness (as CaCO3)	mg/l	55	36	36	29
5	Calcium (as Ca)	mg/l	265	262	261	270
6	T. Alkalinity (as CaCO3)	mg/l	62	58	58	60
7	Sodium (as Na)	mg/l	22	20	21	20
8	Chloride (as Cl)	mg/l	144	128	164	132
9	Fluoride (as F)	mg/l	1.09	1.28	1.40	1.32
10	Turbidity	NTU	11.0	18.3	16.6	17.4
11	Potassium (as K)	mg/l	11.6	11.6	12.4	11.1
12	Magnesium (as Mg)	mg/l	5.45	4.82	7.88	7.56

Lab Incharge (EMD)

