Ambuja Cement

Ref: ACL/MM/ENV/ESR-ML-I/2021-22 **Date: 23/09/2022**

To,

The Member Secretary,
Rajasthan State Pollution Control Board
4, Institutional Area Jhalana Doongri
JAIPUR - 302004 (RAJ)

Sub. : **Environmental Statement Report (Form-V)** for for Lime stone Mine (Major Mineral Mines) Production capacity (2.5 MILLION METRIC TONNES PER ANNUM) (M.L.-I), M.L.No 111/2007) Area 699.939 Hect. for the period of **April-2021 to March-2022** by Ambuja Cement Ltd.(Unit:Marwar-Mundwa),District. Nagaur(Raj).

Ref.: File No.: F (Mines)/Nagaur (Nagaur)/4072 (1)/2019-2020/2827-2831, Order No: 2020-2021/Mines/10174 , Dated 15/09/2020.

Dear Sir,

This has reference to the above subject matter and referred letter. In this regard, We are Submitting herewith the Environmental Statement Report as per Rules 14 of EPA ,1986 & amendment for Lime stone Mines (ML-I) of M/s Ambuja Cement Ltd, Unit marwar Mundwa, District. Nagaur(Raj) for the period of **April-2021 to March-2022** for your Kind reference & record.

Thanking you with regards,

Yours Faithfully

For Ambuja Cement Ltd.
Unit: Marwar-Mundwa

Hamendra Sigh Rathore
(Unit Head)

Encl. a/a

Copy To:
1. The Deputy Director(S) /Scientist –C, Ministry of Environment, Forest & Climate Change, Integrated Regional Office, Aranya Bhawan, Room No. A-209&218, Institutional Area,Jhalana Doogari,Jaipur (Rajasthan)-302004

2. The Regional Officer, RSPCB, 1st Floor, Sahkari Bhumi Vikas Bank Ltd, opposite Police Line, Nagaur- 341001.

Ambuja Cement

ENVIRONMENT STSTEMENT REPORT (FORM-V)

(FY 2021-2022)

For

Lime stone Mine (Major Mineral Mines) Production capacity (2.5 MILLION METRIC TONNES PER ANNUM) (M.L.-I), M.L.No 111/2007)Area 699.939 Hect.

Reported by:

M/s Ambuja Cement Ltd.,Unit : Marwar-Mundwa,
Post & Tehsil: Mundwa, District: Rajasthan (Raj)

Introduction

Ambuja Cement Limited (ACL) , formerly known as Gujarat Ambuja Cements Limited, is a major cement producing company in India. The Group's principal activity is to manufacture and market cement and clinker for both domestic and export markets. Now, Ambuja Cements Ltd., has become a part of the global conglomerate Lafarge-Holcim.

Ambuja Cements Limited (ACL) is having five integrated cement manufacturing plants, eight cement grinding units; and the first in the industry with a captive port and four bulk cement terminals along the west coast of India. Established in 1986, ACL is among country's 'Most Sustainable Companies' and is recognized for its best practices in environment management and corporate citizenship.

Ambuja cements Limited does lot of work on water management and being certified over Eight times Water Positive, Ambuja cements limited is also plastic negative, by co-processing plastic waste in its kilns, equivalent to around 2.5 times of total plastic used.

The company also generates 7.9% of its power needs from renewable resources. It has been ranked #4 in the globally recognized Dow Jones Sustainability Index (DJSI); All Ambuja Cement plants are ISO 14001 certified.

"FORM - V"

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH 2022

PART – A

1.	Name & Address Of The Owner / Occupier Of The Industry Operation Or Process(As Per Factory Act)	Lime stone Mine (Major Mineral Mines) Production capacity (2.5 MILLION METRIC TONNES PER ANNUM) (M.L.-I), M.L.No 111/2007) Area 699.939 Hect.of Ambuja Cements Ltd. Unit: Marwar Mundwa, Teshil : Nagaur District Nagaur (Raj.) Pin code: 341026.
2.	Industry Category Primary:-(Stc Code) Secondary:-(Sic Code)	Red category
3.	Production Capacity :- (Designed / Installed Capacity)	2.5 MTPA
4.	Year Of Establishment :	18.09.2020 (Production start on Sept-2021)
5.	Date Of Last Environmental Statement Submitted	First Time

PART - B

WATER & RAW MATERIAL CONSUMPTION

1.	**WATER CONSUMPTION M^3/day**	
2.	Process	15899 M^3 (As mines is based on dry process technology) (Common for Mines ML-I & ML-II)
3.	Cooling	Not applicable
4.	Domestic	3700 M^3 (Common for Mines ML-I & ML-II)

Name of products	Process water consumption per unit of Lime stone output	
	During the previous financial year (2020-21)	During the current financial Year (2021-22)
	(1)	(2)
Lime Stone	Nil	0.00798 KL/MT of Lime stone

(II) RAW MATERIAL CONSUMPTION

* Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the previous financial year (%) (2020-21)	During the current Financial year (%) (2021-22)
Explosive	Lime stone	**Nil**	0.1015 kg/ MT of Lime stone
Fuel –HSD		**Nil**	0.4312 ltr / MT of Lime stone

(III) POWER CONSUMPTION (KWH/T OF LIME STONE)

During the previous financial year (2020-21)	During the current financial Year (2021-22)
Nil	0.01969 Kwh / MT of Lime stone

(IV) TOTAL LIME STONE PRODUCTION:

Product	During the previous financial year (2020-21)	During the current financial Year (2021-22)
Lime stone	Nil	1990358.0 Tones

PART - C

POLLUTION DISCHARGE TO ENVIRONMENT / UNIT OF OUTPUT

(Parameters as specified in the consent issued)

Pollutants	Quantity of pollution discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a)	No waste water generated from the mining process. Waste water generated from the office toilets is disposed into soak pit via septic tank & waste water generated from mines workshop has some traces of oil & grease is being separated by passing the water through up flow filter & treated water is used reuse for vehicle washing /dust suppression.		
(b)	Air	Please see **Annexure-1.**	
(c)	Water & Noise	Please see **Annexure-2.**	

PART - D

AS SPECIFIED UNDER HAZARDOUS WASTE & OTHER WASTE (MANAGEMENT & TRAN BOUNDARY MOVEMENT RULES 2016 & AMENDMENT RULE, 2019)

Hazardous Wastes		Total Quantity	
		During the previous financial year (MT)	During the current financial year (MT)
a) From Process		**Nil**	**Nil**
b) From Pollution control Facilities		**Nil**	**Nil**

PART – E

Solid Wastes

Hazardous Wastes	Total Quantity	
	During the previous financial year (MT)	During the current financial year (MT)
a) From Process	Nil	
b) From Pollution control Facilities	Nil	
c) 1.Qty. recycled or reused	Nil	
2.Sold	Nil	
3.Disposed (Over burden)	Nil	595670.0 Tones

PART - F

PLEASE SPECIFY THE CHARACTERIZATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

Batteries Wastes:

As specified under Batteries (Management & Handling) Amendment Rules ,2010, We have purchased following new batteries of different categories is common for Cement Plant, WHRS, WTP,LS Crusher & Mines (ML-I & ML-II).

Sr.No.	Number of New batteries of different categories purchased following from manufacturer /importer/dealer or any other agency	During 1st Apr-2021 to 31th Mar 2022	
1.	Common for Cement Plant, WHRS, WTP, LS Crusher & Mines (ML-I & ML-II).		
	Category	No.of Batteries	Approximate weight (in MT)
	(I) Automotive	50	NA
	(a) Four wheeler		
	(b) Two wheeler		
	(ii) Industrial		
	(a) UPS		
	(b) Motive Power		
	(c) stand by		
	(i) Others		
	Total	50	
2	Number of Used batteries of categories mentioned in SL.no.3 and Tonnage of scrap sent manufacturer /importer/ dealer/ registered recycler / or any other agency to whom the used batteries scrap was sent. : **NIL**		

Bio-Medical Wastes:

Bio medical waste generated is common for Cement Plant, WHRS, WTP,LS Crusher & Mines (ML-I & ML-II) & current Financial year under the Bio-Medical Waste (Management & Handling)Rules 2016 & amended on 2019,are as follows.

Bio medical Waste Quantity (Kg) as per coding							
During the previous financial year (FY 2020-21)				During the current financial year (FY 2021-22)			
Yellow	Red	Blue	White	Yellow	Red	Blue	White
Nil	Nil	Nil	Nil	90.4	25.05	31.85	1.63

Above mentioned waste has been sent to E-Tech Projects Jailwell, CBWTF Bio Medical Treatment Facility, Bikaner (Raj) for disposal.

E-wastes:

E- Wastes	Total Quantity	
	During the previous financial year (MT)	During the current financial year (MT)
a) From Process	**Nil**	**Nil**
b) From Pollution control Facilities	**Nil**	**Nil**
Others	**Nil**	**Nil**

Solid Waste :

Solid waste generated from mines operation is over burden is handled by shovel & dumper combination from working face and dumped systematically at overburden dump yard. The total OB generated from **Apr-21 to Mar-22** was 595670.0 Tones.

PART - G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

- Low grade limestone is used with high grade limestone for conservation of limestone.
- Fine mist water spraying system is installed for water spraying on haulage roads.
- Total 3.00 ha area has been used for plantation and total 6000 nos. of plant has planted with 85 % survival rate upto 31th march 2022. Local species are being planted after consultation with local forest officer and as per CPCB/SPCB guidelines. i.e. Neem, Conocarpus, Pipal, Gulmohar and Shisham.

PART - H

ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

- Drilling machines (30 Mt/Hr) is being equipped with both Water injection and dust collector system (DCT) to suppress dust generation at source.

- Controlled blasting is being adopted and optimum use of explosive energy help in reducing the air pollution.
- Use of Hydraulic Rock Breaker for breaking oversize boulders in place of secondary blasting.
- Overloading of material is being avoided.
- Fugitive dust emissions from all sources being controlled regularly, Water spraying on haul roads, loading, unloading and transfer points are being provided and maintained.
- Regular haul road maintenance by deployment of motor grader & soil compactor.
- Maintenance of vehicles is being carried out regularly for minimization of generation of gaseous pollutants.
- Vehicular emissions are being 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 are covered with a tarpaulin and shall not be overloaded.

PART - I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1. Monitoring of ambient air quality is being done regularly & 01 Nos. CAAQMS system installed & online continuous monitoring data is being transferred to CPCB & RSPCB site.
2. Maintenance of pollution control equipment is being checked in scheduled maintenance plan by PM cell.
3. Efficient Water spray system provided to suppress the dust at unloading (Limestone unloading hopper at crusher)
4. Bag filters installed on the discharge/transfer points & Conveyor belts are covered for handling of fine materials.
5. Personal protective equipment's (PPEs) provided to all mine employees i.e. dust mask, ear plug & ear muff, eye goggle etc.
6. We conduct environment awareness for all our stakeholders through meeting, training programs, world environment day celebrations etc.

Annexure-1

Ambient Air Quality Monitoring data for FY2021-22 (in µg/M³)

Month	Parameters	Near Mine Office (Upwind)	Near Ravana/Near Crusher (Down wind)	Drilling Operation (Down wind)	Loading Operation (Down wind)
Apr-21 to Aug-21	Production Not Start				
Sept-21	SPM	295.6	301.5	315.8	312.2
	PM-10	42.1	44.6	48.6	50.6
	PM2.5	23.4	24.5	26.3	27.5
	SOX	12.9	16.3	16.8	20.9
	NOX	20.1	21.4	21.2	25.5
	CO	650	785	725	850
Oct-21	SPM	297.8	321.5	361.4	396
	PM-10	57.9	59.9	61.4	60.1
	PM2.5	36.7	37.3	40	39.9
	SOX	14.5	17.2	15.5	16.5
	NOX	23.2	22.7	22.6	24.1
	CO	572	792.6	703	723
Nov-21	SPM	289.6	319.3	356.3	391.2
	PM-10	56.8	60.8	61	58.8
	PM2.5	37.2	38.3	39.1	41.2
	SOX	16.3	16.2	15.3	16.9
	NOX	23.4	22.5	22.3	22.4
	CO	621	688	796	786
Dec-21	SPM	301	324.8	362.1	371
	PM-10	61.2	62.7	62.8	63.2
	PM2.5	35.6	36.9	39.2	40.3
	SOX	13.8	16.5	14.9	15.6
	NOX	24.5	22.9	23.7	23.2
	CO	736.1	798.1	807.9	782
Jan-22	SPM	322	340	346.5	361
	PM-10	54.2	55.6	55.8	57.2
	PM2.5	34.6	36.7	40	42.9
	SOX	14.8	15.8	18.2	16.5
	NOX	21.2	20.7	22.3	22.7
	CO	535	590	640	556
Feb-22	SPM	301	324.8	362.1	371
	PM-10	61.2	62.7	62.8	63.2

	PM2.5	35.6	36.9	39.2	40.3
	SOX	13.8	16.5	14.9	15.6
	NOX	24.5	22.9	23.7	23.2
	CO	736.1	798.1	807.9	782
Mar-22	SPM	363.5	391.8	398	388
	PM-10	64.9	64.2	66.2	68.5
	PM2.5	40.6	43.1	41.9	43.5
	SOX	16.8	15.6	17.9	17.5
	NOX	22.5	21.4	23.1	22.2
	CO	632.8	632	672	685

Noise level Monitoring data for FY2021-22 (in dBA)

LOCATION	NOISE LEVEL MONITORIED VALUES (in dBA) of FY 2021-22														
	Apr-21 to Aug-21	Sep-21		Oct-21		Nov-21		Dec-21		Jan-22		Feb-22		Mar-22	
		DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
Near Mine Office (Upwind)	Production not start	63.8	55.8	64.8	56.9	66.3	55.2	68.2	60.5	65.9	57.3	66.8	56.5	67.9	56.8
Near Ravana /Near Crusher (Down wind)		66.9	53.1	67.6	54.6	68.4	54.9	69.4	58.3	68.4	57.9	69.2	65.2	71.2	57.5
Drilling Operation (Down wind)		67.2	54.5	70.5	53.1	69.8	50.1	70.5	55.6	71	54.5	70.2	53.8	73.8	52.7
Loading Operation (Down wind)		69.8	55.8	70.3	52.4	70.4	52.1	71.2	54.9	70.8	53.9	69.8	52.9	72.9	53.1
Avg.		**60.5**	**50.1**	**61.5**	**50.2**	**60.9**	**51.5**	**61.9**	**50.3**	**63.2**	**51.3**	**63.1**	**51.5**	**64.3**	**52.5**

* CAAQMS (Continuous ambient air quality monitoring system) installed & data uploading on RSPCB & CPCB portal regularly.

Ambuja Cements Ltd.
Unit: Marwar Mundwa