

Ambuja Cement

Ref: ACL/MM/ENV/ESR-CPP/2021-22

Date: 28/09/2022

To,

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

Sub. : **Environmental Statement Report (Form-V)** for Cement Plant –Production Capacity Clinker 3.0 MTPA, Cement 4.5 MTPA & WHRB 9.0 MW for the period of **April-2021 to March-2022** by Ambuja Cement Ltd.(Unit:Marwar-Mundwa),District. Nagaur(Raj).

Ref.:File No.: **F (CPM) /Nagaur (Nagaur) /2(1)/2018-2019 /5821-5823, Order No:2020-2021/CPM /5685,Dated 10/03/2021.**

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 Cement Plant 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 Singh 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.**

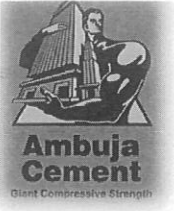
**AMBUJA CEMENTS LIMITED
UNIT-MARWAR**

Post & Tehsil : Marwar Mundwa, District : Nagaur (Rajasthan) 341 026

Phone : 01584-284000, Website : www.ambujacement.com

Registered off. : P. O. Ambujanagar-362715, Taluka-Kodinar, Dist. Gir Somnath (Gujarat)

CIN : L26942GJ1981PLC004717



Ambuja Cement

ENVIRONMENT STATEMENT REPORT (FORM-V) (FY 2021-2022)

For

Cement Plant (Clinker 3.0 MTPA, Cement 4.5 MTPA) and
WHRB (9MW)

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)	M/s Ambuja Cements Ltd. Unit: MarwarMundwa, : Nagaur District Nagaur (Raj.) Pin code: 341026
2.	Industry Category Primary:-(Stc Code) Secondary:-(Sic Code)	Primary
3.	Production Capacity :- (Designed / Installed Capacity)	Clinker : 3.0 MTPA Cement : 4.5 MMTPA Power By WHRS : 9.0 MW
4.	Year Of Establishment :	Cement plant :Sept-2021 WHRS : Not commissioned in FY 2021-22
5.	Date Of Last Environmental Statement Submitted	First Time

PART - B

WATER & RAW MATERIAL CONSUMPTION

1.	WATER CONSUMPTION M³/day	
2.	Process	N.A. (As plant is based on dry process technology)
3.	Cooling	124288 M ³
4.	Domestic	4240 M ³

Name of products	Process water consumption per unit of products output	
	During the previous financial year (2020-21)	During the current financial Year (2021-22)
	(1)	(2)
Clinker	Nil	0.0965
Cement	Nil	0.278
Power by WHRS	Nil	Nil

(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)
Lime stone	Cement	Nil	1.534
Red ochure		Nil	0.0594
Fly ash		Nil	0.322
Coal/Pet coke		Nil	0.1379
Gypsum		Nil	0.1267
China clay		Nil	0.649
Red mud		Nil	0.0165

(III) POWER CONSUMPTION (KWH/T OF CEMENT)

During the previous financial year (2020-21)	During the current financial Year (2021-22)
Nil	64.97

(IV) TOTAL CEMENT PRODUCTION :

Product	During the previous financial year (2020-21)	During the current financial Year (2021-22)
Clinker (MT)	Nil	1287964.282
Cement (MT)	Nil	446889.196
Power By WHRS (KWH)	Nil	Nil

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)	Water	As the plant is being operated on dry process technology, no liquid effluent is generated from the cement plant. Domestic waste water generated from residential colony, canteen and offices toilets is being treated in STP & treated water & sludge generated is 100% used in plantation & horticulture activities.	
(b)	Air	Please see Annexure-1 & 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	**
b) From Pollution control Facilities	Nil	Nil

** 16.442 KL Used oil & 0.088 Tone Waste restudies containing oil Waste is being generated during project activities ; however this is generated from hydraulic machineries, gear oil, lubrication of machines and its related activities, 7.706 KL Used is being sold to registered to recycler & 8.736 KL (Cat.5.1) & 0.08 Tone (Cat. 5.2) qty is balanced.

PART - E
SOLID WASTES

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	Dust collected in the ESPs ,Bag houses & Bag filters are 100% recycled to the system	
c) 1.Qty. recycled or reused	Nil	100% Reutilized with in the process
2.Sold	Nil	Nil
3.Disposed	Nil	Nil

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 1 st Apr-2021 to 31 th 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			
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 pollution control facilities (Bag filters, Bag house & ESP) 100% recycling in process.

PART - G

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

- M/s Ambuja Cement Ltd Unit Marwar Mundwa is being operated on dry process technology, which is cost effective and eco-friendly technology. The advantage of dry process is also in fuel economy.
- The stack emissions from the plant are controlled by pollution control equipments like, Bag houses & ESP. Bag filters installed at various material transfer points to control the fugitive emissions.
- The particulate matter (PM) collected in the pollution control equipment is recycled back in process and neutralizing the cost of operation of PCEs & hence no cost impact on production cost.
- Unit has installed SNCR system for control of NO_x emissions & reduces our impact on GHG emissions which would otherwise have caused due to transportation.
- Unit has mention Zero Ground water abstraction.

PART - H

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

Environment Expenditure incurred in year 2021-22 mentioned below table:

Head under which Amount spent	Amount spent in Lakhs
Pollution Control Devices Maintenance Cost & Power Cost	985.47
Pollution Monitoring & Analysis (New Equipment, Calibration, Consumables items & Chemicals)	228.291
Green Belt Development	22.429
Environment Consultancy	14.313
Consent Fee for CTE/CTO /Renewal of CTO & Water charges	6.587
Total amount	1257.09

PART - I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1. Monitoring of stack emission & ambient air quality is being done regularly & quarterly by NABL accredited laboratory.
2. CEMS & CAAQMS system installed & real time monitoring data is being transferred to CPCB & RSPCB site.
3. Maintenance of pollution control equipment is being checked in scheduled maintenance plan by PM cell.
4. Efficient Water spray system provided to suppress the dust at unloading point like additive, coal etc.
5. Bag filters installed on the discharge/transfer points & Conveyor belts are covered for handling of fine materials.
6. All raw materials are storage under covered shed.
7. Fly ash unloading through Pneumatic system to control fugitive emissions.
8. Road cleaning regularly by sweeping machine. One big size truck mounted & 02 Nos. Small TPS sweeping machines.
9. All truck movement area is cemented.
10. Domestic waste water generated from colony, guest house, offices & canteen is being treated at Sewage Treatment Plant (STP) and treated water is being utilised in plantation & gardening.
11. We are committed and maintaining Zero Liquid Discharge (ZLD) from our premises.
12. We conduct environment awareness for all our stakeholders through meeting, training programs, world environment day celebrations etc.
13. Green belt development is our ongoing process within core zone as well as buffer zone. Every year we are doing new trees plantation to increase the density & bio-diversity of the area. Total plantation 26,528 nos. trees have been planted upto 31st 2022 in plant & colony.

Annexure-1

Stack emission Monitoring data (PM Values in mg/Nm³) of FY 2021-22)

Month	Raw Mill & Kiln Bag house	Coal mill Bag house	Cooler ESP	Cement Mill Bag house	Packer -1 Bag Filter	Packer -2 Bag Filter
Apr-21	PLANT NOT COMMISSIONED					
May-21						
Jun-21						
Jul-21						
Aug-21						
Sept-21	PLANT START					
Oct-21	18.2	9.8	10.3	14.2	12.4	15.9
Nov-21	16.5	13.2	12.8	11.9	10.1	11.3
Dec-21	15.8	10.6	11.5	12.8	13.2	12.9
Jan-22	19.4	14.9	16.2	15.5	12.1	13.6
Feb-22	15.9	13.5	14.8	17.3	13.8	12.9
Mar-22	18.2	17.4	18.6	18.1	14.2	13.2
Average	17.3	13.2	14.0	15.0	12.6	13.3

** CEMS (Continuous Emission Monitoring System & CAAQMS (continuous ambient air monitoring system) installed & data uploaded on RSPCB & CPCB portal.

Annexure-2

Ambient Air Quality Monitoring data for FY2021-22 (in $\mu\text{g}/\text{M}^3$)

Month	NEAR TIME OFFICE					NEAR PACKING PLANT					NEAR COAL YARD					NEAR COLONY				
	PM-10	PM-2.5	SO2	Nox	CO	PM-10	PM-2.5	SO2	Nox	CO	PM-10	PM-2.5	SO2	Nox	CO	PM-10	PM-2.5	SO2	Nox	CO
Apr-21 TO Aug-21 PLANT NOT COMMISSIONED																				
Sep-21	53.26	23.48	3.5	11.85	250	58.45	26.47	3.91	12.52	250	53.42	21.35	2.54	10.28	210	48.73	20.87	3.26	10.71	230
Oct-21	52.3	35.8	16.5	25.7	707	59.7	40.4	16.6	23.5	772.9	60.6	40.7	15.2	20.4	745.7	51.7	36.9	16.7	23.8	795.8
Nov-21	53.9	36.4	17.8	22.9	695	58.6	40.1	17.6	22.8	780	61.2	41.8	19.6	21.4	760	51.2	37.8	15.3	19.5	695
Dec-21	41.1	28.2	18.7	15.8	605	44.6	35.9	19.1	20	785	48.7	39.2	18.4	19.8	795	41.6	33.7	16.4	19.9	680
Jan-22	55.6	34.8	12.4	22.4	725	60.5	36.2	15.8	21	785	61.9	41.1	16.4	22.7	742	52.4	32.2	15.6	20.5	760
Feb-22	54.6	35.1	12.7	20.4	679	59.2	38.4	13.6	19.8	760	60.4	39.6	12.4	22.2	725	50.8	30.8	14.3	18.9	810
Mar-22	58.5	34.8	20.4	23.5	750	64.5	39.8	18.6	22.2	815	72.5	42.9	16.5	20.8	690	41.6	33.7	19.2	24.6	845
Avg.	52.8	32.7	14.6	20.4	630.1	57.9	36.8	15.0	20.3	706.8	59.8	38.1	14.4	19.7	666.8	48.3	32.3	14.4	19.7	688.0

LOCATION	NOISE LEVEL MONITORED 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 TIME OFFICE	Plant not commissioned	65.6	53.5	61.7	52.5	58.6	52.6	62.6	51.3	66.3	54.2	67.2	53.2	65.8	55
NEAR PACKING PLANT		61.8	53.4	65.8	52.4	63.2	55.6	63.8	52.8	65.6	56.4	63.8	55.6	69.2	56.3
NEAR COAL YARD		62.5	51.6	64.8	55.4	67.4	55.2	66.4	53.4	67.3	51.2	67.4	52.4	67.6	53.7
NEAR COLONY		52.2	41.9	53.6	40.7	54.6	42.5	54.9	43.7	53.7	43.4	54.2	44.7	54.8	45
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

**Ambuja Cements Ltd
Unit: Marwar Mundwa**