



ZCL/ENV/F-V/MINES/2022/ Sep 03

Date: 24.09.2022

TO,
The Member Secretary
Andhra Pradesh Pollution Control Board,
D No:33-26-14 D/2, Near Sunrise Hospital,
Puspha Hotel Centre,
Chalamavari Street, Kasturibaipet,
Vijayawada-520010.

Sub: Environmental Statement (Form-V) of Zuari Limestone Mines of M/s Zuari Cements Ltd, located in Krishnagar, Yerraguntla, District Y.S.R Kadapa – A.P for the Year 2021-22.

Dear Sir,

This has reference to above subject, we are submitting herewith the Environmental Statement in Form-V of Zuari Limestone Mines of M/s Zuari Cement Ltd, located in Krishnagar, Yerraguntla, District Y.S.R Kadapa – A.P for the Year 2021-22 as per The Environment (Protection) Rules 1986.

Kindly acknowledge receipt of the same.

Thanking you,

Yours faithfully, For Zuari Cement Ltd.

V.Madhava Reddy AGM -Environment

Encl: As above

CC:

The Regional Director, Integrated Regional Office, Ministry of Environment, Forests & Climate Change, Buckinghampeta, Vijayawada, Andharapradesh -520002.

The Environment Engineer,
Andhra Pradesh Pollution Control Board,
Regional Office, 2nd Floor,
D.No.1/2277, Rajiv Park Road,
A.P. Housing Board Colony, Kadapa – 516003.













M/s. ZUARI LIMESTONE MINE (M/s. ZUARI CEMENT LTD.)
Kirshna Nagar, Yerraguntla,
Kadapa (Dist) - 516 311.



ENVIRONMENTAL STATEMENT (AUDIT)FOR THE FINANCIAL YEAR 2021-22

INTRODUCTION:

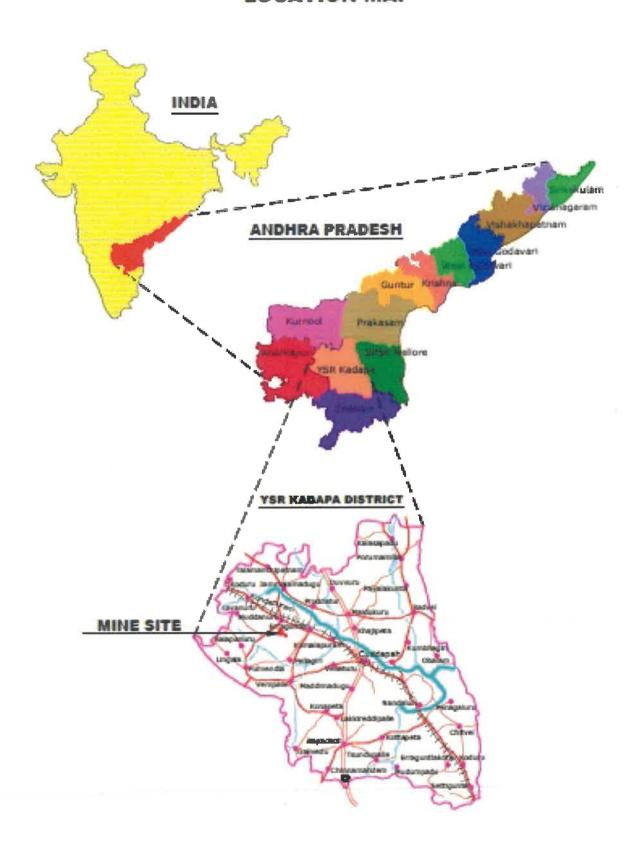
M/s. Zuari Cement Limited (ZCL) is part of Heidelberg Cement group, number 1 producer of aggregates, the number 2 in cement and number 3 in ready-mixed concrete worldwide. The Plant was established in the year of 1985 and expanded in 1999& 2010. After the commissioning of Line-2 in the year 2010, the production capacity has enhanced to 5.4 MTPA. M/s. Zuari Cement Limited is manufacturing different types of Cement with a production capacity of Clinker- 4.3 Million Tonne/Annum and Cement - 5.4 Million Tonne/Annum. The Yerraguntla unit is An ISO 9001,ISO 14001,50001& ISO 45001certified company

LOCATION:

The M/s. Zuari Limestone Mines (M/s. Zuari Cement Limited) is situated in Yerraguntla Mandal, Kadapa district of Andhra Pradesh. The area is located between Latitude 14036'10" to 14038'30" N and Longitude 78031'24" to 78033'30" E.

The nearest airport is at Kadapa, which is about 46 km away. The nearest railway station is Yerragunta, which is located on the Chennai – Mumbai broad gauge line. There is a private siding wholly owned by the cement company joining the above said line at Yerraguntla. This is solely used for transport of cement and other raw materials. The mine area is 7 km away from Yerraguntla and nearest business town is Proddatur, which is at a distance of 19 km.

LOCATION MAP



FORM - V (See rule 14) ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH, 2022

PART - A

i) Name and address of the owner/ coccupier of the industry operation or process.

Shri. Vimal Kumar Jain Director –Technical, The Plam Drive,Tower-A Flat No 302,Sector 66, Gurugram, Haryana – 122102.

ii) Date of the last environmental

25.09.2021

audit report submitted

iii) Production Capacity : 7.0 Million Tons/Annum

iv) Year of Establishment : 1984

PART – B WATER AND RAW MATERIAL CONSUMPTION

	Water consumption per u	init of product (KL/MT)
Name of Product	During the previous financial year (2020-21)	During the current financial year (2021-2022)
Limestone	0.008	0.0069
ii) Raw material consumption	on:	
Name of Raw Name of Materials product	Consumption of raw mate	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
HSD Limestone	0.59 L /MT	0.495 L/MT
Explosives Limestone	0.130 Kg/MT	0.104 Kg/MT

PART - C POLLUTION GENERATED

(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants Discharged (kg/day) 2020-21	Concentrations Of Pollutants in Discharges (mg/L) 2021-22	Percentage of variation from prescribed standards with reasons
------------	--	---	--

- a) Waste Water: (There is no process waste water)
- b) Air: There are no source emissions, only dust generation during mining operation is monitored by establishing ambient air quality sampling stations at various places in mine premises and surrounding areas. The generated data is enclosed as Annexure-I

PART - D

HAZARDOUS WASTE

(Under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

	Total	Quantity per Year
Hazardous wastes	During the previous financial year fina (2020-21)	•
a) From Process i) Waste Oil/ residue containing oil	14.06 MT	11.386 MT
ii) Waste oil iii) Old Batteries	NIL 8.86 MT	3.65 MT 0.92 MT
b) From Pollution control facilities	s NA	NA

Note: 2021-22 Waste Oil and Grease generated from plant and limestone mine.

PART - E

SOLID WASTES

		Total quantity	
S.No	Solids Waste	During the previous financial year (2020-21)	During the current financial year (2021-22)
É	From Process Black cotton soil generating in mining operation	Nil	NIL
b) F	From Pollution Control Facili	ty -NA-	-NA-
c)	Quantity recycled or re-utili	zed -NA-	-NA-

PART - F

Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as solid wastes and indicates disposal practice adopted for both these categories of wastes.

Hazardous waste generated in the form of used oil and old batteries. Used oil is sold to authorized waste Recyclers. Old batteries are disposed to authorized battery Recyclers.

Solid waste as black cotton soil, negligible in quantity, generated during mining operation is stored in dumps and used in greenbelt developments.

PART - G

Impact of the pollution control measures on conservation of natural resources and consequently on the cost of production.

Evaluation on this aspect is being carried. Reclamation of mined out area as development of water storage reservoirs will be done to facilitate increase in water regime after completion of mining in lease hold areas.

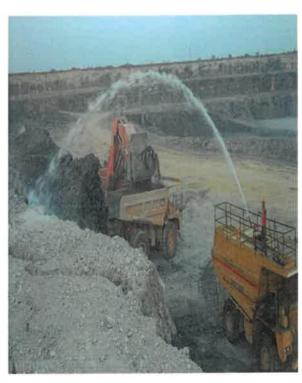
Additional investment for environmental protection including abatement of pollution.

The company is committed to preserve and improve the ecological balance in and around the mine area. In order to achieve this company has taken several steps to make the mine Eco-friendly.

- > Centralized water-sprinkling system along with a mobile water sprinkler used for haulroad sprinkling and sprinkling on muck pile.
- > Oil separation pit near washing ramp for separating oil from overflow water, which is again reused for washing.
- > Concreting done at mines garage area to avoid fugitive dust emission.



WET DRILLING



MUCK PILE WETTING



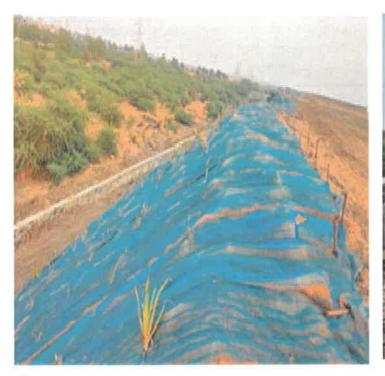
Water Sprinklers at haul road





WATER TANKER

WATER SPRAYING AT CRUSHER





Geo textile matting

Garland Drain



Belt curtains provided at crusher hopper

PART - I

Any other particulars in respect of environment protection and abatement of pollution.

The management objective is to achieve the production without affecting the physical, chemical and biological environments of the nearby vicinity. Industry has taken lot of efforts to raise the plantation in and around the mining lease area.

Development of deep sump in mines has been taken up, so that rain water can be stored for use during summer. The same sump also helps in recharging of the underlying aquifer. Rain harvesting is practiced and same water is being used for dust suppression. For noise pollution control, down the hole initiation system are used. Over and above greenbelt is developed along the boundary of mine area for reducing the impact of noise due to mining activity on the surrounding environment. Regular water sprinkling is done at mine face and haulage roads to suppress dust. Conservation of resources is done following approved mining plan.

AMBIENT AIR MONITORING RESULTS FOR THE YEAR -2021-22

Location: Mines Office

	April-21	1-21	May-21	-21	June-21	-21	July-21	-21	Aug-21	-21	Sep-21	.21	Oct-21	21	Nov-21	27	Dec-21	77	Jan-22	22	Feb-22	-22	March-22	1-22
	-	=	_	=	-	=	-	=	-	=	_	=	_	=	_	=	_	=	_	=	-	=	2000	=
PM10 µg/m3	62.2	56.2	65.2	59.3	60.2	56.8	57.4	62.2 56.2 65.2 59.3 60.2 56.8 57.4 51.2 52.6 58.0	52.6	တ	58.4 53.4 55.9 52.2 51.4 48.6 56.8 50.9 52.2 46.5 50.7 49.7 56.9 57.6	53.4	55.9	52.2	51.4	48.6	56.8	50.9	52.2	46.5	50.7	49.7	56.9	9.75
	20.4	21.4	24.4	22.7	22.8	21.5	21.8	20.4 21.4 24.4 22.7 22.8 21.5 21.8 19.0 19.9 22.2 22.1 20.3 20.5 20.4 19.5 18.4 21.5 19.3 19.8 17.6 18.4 18.5 20.3 20.3 20.3	19.9	22.2	22.1	20.3	20.5	20.4	19.5	18.4	21.5	19.3	19.8	17.6	18.4	18.5	20.3	20.2
SO2 µg/m3	8.65	10.4	14.8	9.8	8.7	9.6	6.9	8.65 10.4 14.8 8.6 8.7 9.6 6.9 7.8 7.3 8.9	7.3	8.9	8.4	9.3	8.4 9.3 9.6 7.2 7.4 6.0 6.7 7.5 7.2 8.4 6.7 7.9 7.9 6.4	7.2	7.4	0.9	6.7	7.5	7.2	8.4	2.9	6.7	6.7	6.4
	18.2	17.8	23.1	16.9	20.9	18.3	16.4	18.2 17.8 23.1 16.9 20.9 18.3 16.4 16.2 18.9 18.1	18.9	18.1	19.2 17.5 17.5 16.3 16.3 17.8 15.8 16.3 16.9 17.6 15.5 16.4 16.3 17.9	17.5	17.5	16.3	16.3	17.8	15.8	16.3	16.9	17.6	15.5	16.4	16.3	17.9

Location: Loading

-22	_	33.2	23.8	6.01	21.9
March-22		9.5	2 2.9	9.8	2.5
	_	3.4 6	3.7 2	2.5	4.7 2
Feb-22		.2	.6	.3	.4
		9 64	1 24	2 10	3 21
Jan-22	=	65.9	25.	10.	21.
		67.8	25.7	12.5	24.3
Dec-21	=	62.7	23.8	9.8	20.9
Dec		64.9	24.6	11.5	22.6
-21	=	65.8	25.1	11.7	19.6
Nov-21	_	68.7	26.1	10.6	21.4
-21	=	61.3	24.1	9.6	21.5
Oct-21	-	63.4	19.8	11.4	22.3
77	=	87.8	25.7	10.5	20.3
Sep-21	_	70.8	26.9	10.7	20.6
-51	=	64.7	24.5	11.3	21.6
Aug-21		76.1	28.9	11.6	21.4
-5	=	62.9	23.9	9.4	19.1
July-21	_	70.5 66.5 74.3 62.4 71.4 66.7 68.5 62.9 76.1 64.7 70.8 67.8 63.4 61.3 68.7 65.8 64.9 62.7 67.8 65.9 64.2 68.4 69.5 63.2	30.6 26.3 31.2 24.5 27.1 25.3 26.1 23.9 28.9 24.5 26.9 25.7 19.8 24.1 26.1 25.1 24.6 23.8 25.7 25.1 24.6 26.7 26.7 26.7	12.5 12.6 11.4 10.7 10.5 11.9 9.4 9.4 11.6 11.3 10.7 10.5 11.4 9.6 10.6 11.7 11.5 9.8 12.5 10.2 10.3 12.5 9.8 10.3	22.1 24.9 24.5 21.8 22.6 20.4 18.1 19.1 21.4 21.6 20.6 20.3 22.3 21.5 21.4 19.6 22.6 20.9 24.3 21.3 21.4 24.7 22.5 21.9
-21	=	2.99	25.3	11.9	20.4
June-21	_	71.4	27.1	10.5	22.6
21	=	62.4	24.5	10.7	21.8
May-21	_	74.3	31.2	11.4	24.5
-21	=	66.5	26.3	12.6	24.9
April-21	_	70.5	30.6	12.5	22.1
		PM10 µg/m3	PM2.5 µg/m3		

Location: Near Drilling

	April-21	1-2	May-21	12	June-21	-21	July-21	-21	Aug-21	-21	Sep-21	-21	Oct-21	12	Nov-21	72	Dec-21	2	Jan-22	752	Feb-22	-22	March-22	h-22
	_	=	-	=	-	=	-	=		=	-	=	-	=	-	=	-	=	_	=		=	-	=
PM10 µg/m3	75.1	72.1	75.1 72.1 78.1 68.5 75.3 70.8 72.6 74.1 69.7 70.2	68.5	75.3	70.8	72.6	74.1	2.69	70.2	74.5	72.6	61.6	46.4	74.5 72.6 61.6 46.4 65.2 53.9 60.5 58.1 63.2 60.7 60.7 64.2 64.7 60.8	53.9	60.5	58.1	63.2	2.09	60.7	64.2	64.7	8.09
PM2.5 µg/m3	32.5	30.2	32.5 30.2 34.3 27.6 28.6 26.9 27.5 28.1 26.4 26.6 28.3 27.5 18.8 19.2 24.7 20.4 22.9 22.1 24.1 23.1 23.3 24.9 24.8 21.7 20.4 20.4 20.4 20.4 20.4 20.4 20.4 20.4	27.6	28.6	26.9	27.5	28.1	26.4	26.6	28.3	27.5	18.8	19.2	24.7	20.4	22.9	22.1	24.1	23.1	23.3	24.9	24.8	21.7
SO2 µg/m3	13.7	11.7	13.7 11.7 10.2 9.5 11.7 10.3 10.5 8.90 9.7 13.2 11.3 11.9 10.5 8.7 8.8 9.4	9.5	11.7	10.3	10.5	8.90	9.7	13.2	11.3	11.9	10.5	8.7	8.8	9.4	9.8	8.3	10.7	9.5	11.3	9.8 8.3 10.7 9.5 11.3 11.7 10.5	10.5	8.4
NOX pg/m3	24.7	22.4	24.7 22.4 21.1 20.9 24.2 21.4 20.7 18.6 16.5 25.	20.9	24.2	21.4	20.7	18.6	16.5	25.8	22.8	22.6	23.9	18.9	.8 22.8 22.6 23.9 18.9 19.6 21.5 20.4 18.7 21.9 19.2 23.8 21.5 20.9 19.6	21.5	20.4	18.7	21.9	19.2	23.8	21.5	20.9	19.6

Location: Haul Road

	April-21	-21	May-21	-51	June-21	-21	July-21	-21	Aug-21	-5	Sep-21	.51	Oct-21	-21	Nov-21	-21	Dec-21	-21	Jan-22	-22	Feb-22	-22	March-22	h-22
T	-	=	_	=	-	=	-	-	-	=	-	-	-	=		=	-	=	_	=	_	=	-	=
PM10 µg/m3	68.4	69.4	68.4 69.4 79.5 65.1 68.7 73.8 63.2 63.3 60.3	65.1	68.7	73.8	63.2	63.3	60.3	62.8	62.9	61.2	64.5	65.9 61.2 64.5 61.5 58.6 57.9 66.8 54.8 60.4 57.3 57.9 54.7 60.2 52.4	58.6	57.9	66.8	54.8	60.4	57.3	57.9	54.7	60.2	52.4
_	27.8	28.3	27.8 28.3 25.1 26.1 28.1 24.3 25.9 22.9 23.8 25.1 23.3 20.1 21.8 22.2 22.1 23.3 20.1 21.8 22.2 22.1 25.3 20.8 22.9 21.8 21.3 20.1 22.7 17.8	25.7	26.1	28.1	24.3	25.9	22.9	23.8	25.1	23.3	20.1	21.8	22.2	22.1	25.3	20.8	22.9	21.8	21.3	20.1	22.7	17.8
	11.9	14.5	11.9 14.5 13.3 13.6 9.6 12.7 12.2 10.3 13.2 12.5 12.6 13.4 8.7 10.8 9.5	13.6	9.6	12.7	12.2	10.3	13.2	12.5	12.6	13.4	8.7	10.8	9.5	8.4	10.6	10.6 10.5 9.8 11.7 12.6 8.9 11.4 12.4	9.8	11.7	12.6	8.9	11.4	12.
	23.9	26.1	23.9 26.1 25.4 23.9 18.5 24.2 24.7 20.9 26.2 23.5 25.5 25.1 24.6 23.2 23.8 24.8 18.5 22.9 17.4 23.8 24.9 20.4 23.7 23.7	23.9	18.5	24.2	24.7	20.9	26.2	23.5	25.5	25.1	24.6	23.2	23.8	24.8	18.5	22.9	17.4	23.8	24.9	20.4	23.7	23.

Location: Valasapalle

	April-21	1-21	May-21	-21	June-21	-24	July-21	-21	Aug-21	-21	Sep-21	-21	Oct-21	-21	Nov-21	-21	Dec-21	-51	Jan-22	-22	Feb	Feb-22	Marc	March-22
	_	=	-	=		=	-	-		-	-	-	-	=	_	=	-	=	-	=	-	=	-	=
PM10 µg/m3	56.3	54.3	56.3 54.3 57.4 51.7 53.8 55.9 50.1 52.2 57.8 50.6 54.6 47.9 50.8 44.6 46.7 40.4 49.8 46.5 60.4 41.9 51.6 44.6 46.3 49.5	51.7	53.8	55.9	50.1	52.2	57.8	50.6	54.6	47.9	50.8	44.6	46.7	40.4	49.8	46.5	60.4	41.9	51.6	44.6	46.3	49.5
PM2.5 µg/m3	17.1	20.1	17.1 20.1 21.1 18.6 20.4 21.2 19.3 21.7 18.3 19.3 16.9 17.7 15.4 18.9 17.6 22.9 15.9 20.2 17.8 17.4 16.7	18.6	20.4	21.2	19.3	21.7	21.9	19.2	20.7	18.3	19.3	16.9	17.7	15.4	18.9	17.6	22.9	15.9	20.2	17.8	17.4	16.7
SO2 µg/m3	7.5	8.3	8.3 9.5 9.1 7.6 10.3 8.4 8.6	9.1	9.7	10.3	8.4	9.6	6.8	9.7	7.4	8.3	6.9	6.5	7.4 8.3 6.9 6.5 8.5 9.4 7.9 6.5 9.8 7.2 7.5 6.6 8.2 9.5	9.4	6.7	6.5	8.6	7.2	7.5	9.9	8.2	9.2
NOX µg/m3	9.1	16.3	9.1 16.3 16.1 17.3 15.8 19.2 17.9 18.1 15.6 16.7 16.8 18.5 17.6 16.9 15.9 18.2 16.4 16.7 17.4 15.5 17.3 17.2 18.2 20.4	17.3	15.8	19.2	17.9	18.1	15.6	16.7	16.8	18.5	17.6	16.9	15.9	18.2	16.4	16.7	17.4	15.5	17.3	17.2	18.2	20.4

Location: Koduru

	April-21	1-21	May-21	-21	June-21	-21	July-21	-21	Aug-21	-21	Sep-21	27	Oct-21	21	Nov-21	-21	Dec-21	-21	Jan-22	52	Feb-22	-22	March-22	h-22
			_	=		=	_	=	_	=	_	=	_	=		=		=		=	-	=		-
PM10 µg/m3		63.2	60.2 63.2 62.5 60.6 59.2 63.4 51.9 60.6 53.1	9.09	59.2	63.4	51.9	9.09		26.8	55.9 58.6 51.2 61.9 42.8 56.3 40.1 51.9 46.4 47.5 48.7 56.2 52.6 52.8	58.6	51.2	61.9	42.8	56.3	40.1	51.9	46.4	47.5	48.7	56.2	52.6	52.8
PM2.5		24.3	24.6 24.3 24.4 22.4 24.1 18.5 22.2 20.1 21.2 22.2 20.7 20.5 16.2 21.4 15.2 19.7 17.6 18.1 18.2 22.9 20.8 20.4	22.4	22.4	24.1	18.5	22.2	20.1	21.5	21.2	22.2	20.7	20.5	16.2	21.4	15.2	19.7	17.6	18.1	18.2	22.9	20.8	20.4
SO2 µg/m3		6.7	9.1 7.9 10.2 8.7 8.8 9.5 10.1 10.9 9.3	8.7	8.8	9.5	10.1	10.9	9.3	8.8	8.7 10.5 9.5	10.5	9.5	9.2 10.1 10.3 9.5	10.1	10.3	9.5	8.9 8.2 9.1	8.2	9.1	9.5	9.5 8.7 10.1 7.4	10.1	7.4
NOX ug/m3		15.9	21.9 15.9 20.4 16.5 17.6 17.9 20.2 21.3 18.5 20.8 19.6 21.4 18.8 19.6 20.7 20.3 19.3 19.5 17.5 23.5 19.5 19.5 17.5 23.5 19.5 16.8 16.8	16.5	17.6	17.9	20.2	21.3	18.5	20.8	19.6	21.4	18.8	19.6	20.7	20.3	19.3	19.5	19.5	17.5	23.5	19.5	21.8	16.8

Location: Peddannapadu

	Apr	April-21	Мау	May-21	June-21	}-21	July-21	-21	Aug-21	-21	Sep-21	-21	Oct-21	-21	Nov-21	-21	Dec	Dec-21	Jan	Jan-22	Fet	Feb-22	Marc	March-22
	-	=		=	_	=		-	-	=	_	=	_	=		=	-	=	_	=	-	=		=
PM10 µg/m3	58.4	60.4	59.3	64.7	50.9	57.2	58.4 60.4 59.3 64.7 50.9 57.2 55.6 57.4 60.6 61.9 46.2 63.2 48.7 58.8 53.5 52.9 50.5 56.3 56.1 50.2 59.2 53.4 57.4	57.4	9.09	61.9	46.2	63.2	48.7	58.8	53.5	52.9	50.5	56.3	56.1	50.2	59.2	53.4	57.4	55.9
PM2.5 µg/m3	19.3	22.3	18.5	24.9	19.3	21.7	19.3 22.3 18.5 24.9 19.3 21.7 19.9 24.6 23.1 23.5 17.5 24.1 18.5 22.3 20.3 20.2 19.1 21.3 21.3 19.1 23.5 20.6 21.5 22.7	24.6	23.1	23.5	17.5	24.1	18.5	22.3	20.3	20.2	19.1	21.3	21.3	19.1	23.5	20.6	21.5	22.7
S02 µg/m3	6.5	10.2	9.4	12.3	9.2	11.4	6.5 10.2 9.4 12.3 9.2 11.4 7.5 12.6 8.5	12.6	8.5	9.1	9.1	6.7	7.9 7.8 8.8	8.8	7.3	7.7	10.7	7.3 7.7 10.7 7.2	9.3	8.4	8.1	10.5 11.7	11.7	8.9
NOX pg/m3	16.5	18.4	17.2	20.6	18.9	21.4	16.5 18.4 17.2 20.6 18.9 21.4 16.3 23.2 17.4 22.6 20.3 16.3 21.4 18.7 18.8 16.4 20.4 18.7 23.2 16.8 21.5 22.2 23.9 18.4	23.2	17.4	22.6	20.3	16.3	21.4	18.7	18.8	16.4	20.4	18.7	23.2	16.8	21.5	22.2	23.9	18.4

Location: Tummalapalli

	April-21	-21	May-21	-21	June-21	-21	July-21	-21	Aug-21	-21	Sep-21	-21	Oct-21	-21	Nov-21	-21	Dec-21	7	Jan-22	-22	Feb-22	-22	March-22	h-22
	_	=		=	_	=	-	=	-	=	-	=	_	=	-	=		=	_	=	-	=	-	=
PM10	66.5	51.3	66.5 51.3 68.2 55.9 62.3 52.1 54.7 55.5 50.8 53.8	55.9	62.3	52.1	54.7	55.5	50.8		59.2	56.5	52.1	59.2 56.5 52.1 50.8 57.9 59.4 55.2 42.8 52.6 56.6 55.2 61.7 59.8 59.4	57.9	59.4	55.2	42.8	52.6	56.6	55.2	61.7	20.02	59.4
g/m3																		į))	!	:	2	-
M2.5	26.2	17.0	76 2 17 2 26 2 23 8 23 8 40 7 20 7 21 1 10 3 20 4	8 00	22.6	10.7	7 00	24.4	70.2		700	, 1	20.2	10.0	22.0	300	000	0 0	0	7	0,70	7	C	C
lg/m3	7.07	7.1	7.07	20.0	23.0	2.6	7.07	1.12	ა ა		4.22	5.12	50.3	22.4 21.3 20.3 19.3 22.0 22.0 20.9 10.2 18.9 21.3 21.0 24.3 25.9 25.8	0.22	0.22	20.3	7.01	9. 9.	0.17	0.12	24.5	23.9	23.8
SO2	101	117	10.1 11.7 0.3 10.4 10.7 8.6	10.1	10.7	Q Q	9	00 100 00	10.2	0	44.0	0	10 5	113 00 105 78 01	_	0	7	9	7	7	ď	c	c	0
ng/m3		7.1.1	5.	†.		0.0	0.0	5.0	7.0	0.			5.0	5.	_	0.7	-	9.0 0.0		0.0		8.2 10.3	9. G	0.0
NOX	20.0	04.0	702 212 215 202 464 408 472 206 482	70 1	000	707	0 0	41.0	700		0 00	0 00	0	7 00	7 00	70.1	110	0	7 0 7	0	0	2	3	0
ng/m3	50.3	7.17		0. 0.	50.3	4.	0.0	7:1	50.3		0.22	0.02	20.3	22.0 20.0 20.3 22.4 22.4 18.3 17.0 21.3 10.4 20.0 10.2 21.3 20.1 22.0	4.77	0. 0.	0.7	S.12	4.0	0.02	7.01	Z		0.77

Environmental Statement for the year 2021-22 Zuari Limestone mines, Yerraguntla, Kadapa-A.P

AMBIENT NOISE RESULTS FOR THE YEAR -2021-22

disciplina	April-21	May-21	April-21 May-21 June-21 July-21 Aug-21 Sep-21 Oct-21	July-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	March-22
Location	۵	٥	D	D	۵	۵	۵	D	۵	Ω	Ω	D
Mines Boundary-East	61.20	63.70	64.90	61.50	65.40	64.80	61.90	63.40	61.70	63.40	65.90	64.10
Mines Boundary-West	68.40	65.30	62.50	64.70	61.30	63.10	65.80	64.90	63.90	65.10	66.10	62.90
Mines Boundary-North	64.70	62.90	65.20	60.30	62.90	02.09	62.80	60.30	58.40	61.90	63.40	65.30
Mines Boundary-South	66.30	61.50	02.99	62.90	63.60	65.40	63.70	66.10	59.30	60.20	62.80	63.20

	April-21	May-21	April-21 May-21 June-21 July-21	July-21	Aug-21	Sep-21	Oct-21 N	Nov-21	Dec-21	Jan-22	Feb-22	March-22
Location	z	z	z	z	z	z	z	z	z	z	z	z
Mines Boundary-East	56.40	58.20	59.40	56.40	60.50	59.40	56.30	58.50	56.50	58.10	60.80	59.30
Mines Boundary-West	63.20	08.09	57.80	59.20	56.30	58.30	60.20	59.20	58.30	60.40	61.20	92.73
Mines Boundary-North	59.50	92.75	60.30	55.10	57.10	55.50	57.70	55.60	53.20	56.70	58.50	60.10
Mines Boundary-South	61.70	56.70	61.20	57.50	58.80	60.20	58.60	61.30	54.70	55.30	57.10	58.70

D:Day Time N:Night Time

MINES PIT WATER ANALYSIS REPORT FOR THE YEAR 2021-22

,	Total Dissolved Solid (TDS)	Bio-chemical Oxygen Demand	PH	Total Suspended solids (TSS)
APR'21	1,320	10	7.46	47
MAY'21	1,372	08	7.64	30
JUN'21	1,328	06	7.39	26
JUL'21	1,195	05	7.62	23
AUG'21	1,241	07	7.40	28
SEP'21	1,268	09	7.54	20
OCT'21	1,224	07	7.81	24
NOV'21	1,346	08	7.58	26
DEC'21	1,211	07	7.35	23
JAN'22	1,090	06	7.81	21
FEB'22	964	08	7.59	18
MAR'22	868	07	7.32	16

(Zero Discharge Water from Mines)
Mines harvested water is being used for Cement Plant Operations.

Water Sprinklers inside Plant

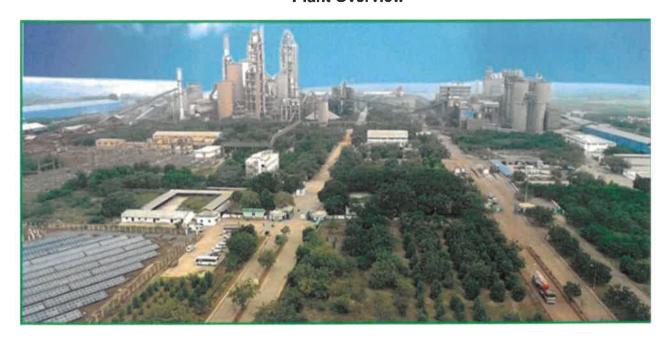


Rain guns at Mines Roads

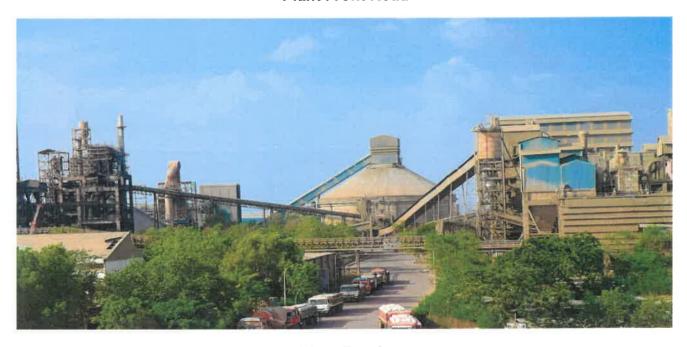


Green Belt Development

Plant Overview



Plant Front Road



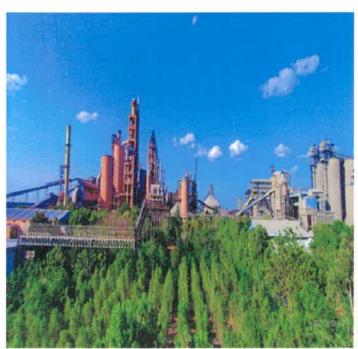
Plant Roads

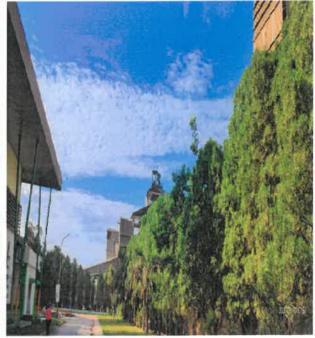
STP Road





Inside Plant





Miyawaki Plantation

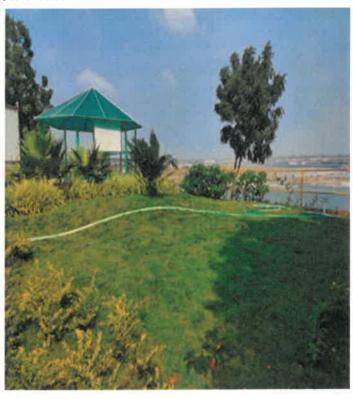




Plantation: 20201-22: Plant - 4700 Nos & Mines:1600 NOs

Mines View Point

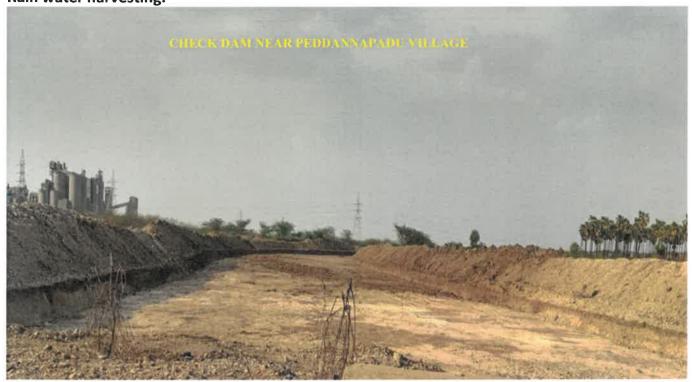


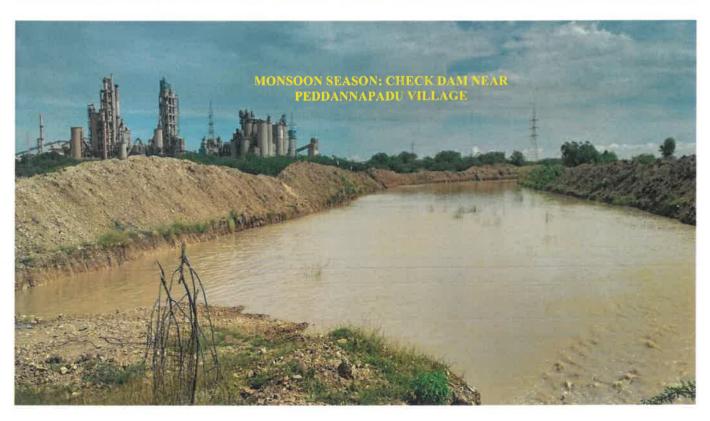




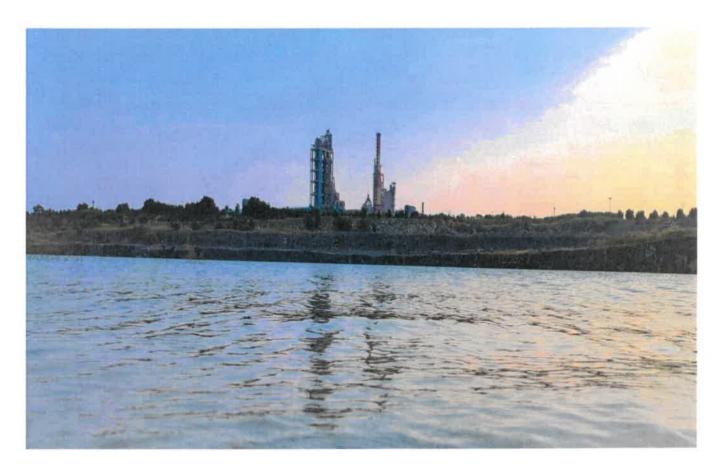


Rain water harvesting:









Improving the quality of the environment.

- Zuari Cement has certified ISO-14001 (Environmental Management Systems) by TUV.
- To create Environmental awareness Zuari Cement is celebrated World Environment Day every year.
- Massive Plantation has been done at inside and outside the plant &mines.
- To reduce water consumption, Collection pond has been made in plant to collect Rainwater/spillage water which is used for the Plant process.
- Ensure water sprinkling system in Crusher and Transfer point of Conveyor belt for effective fugitive dust suppression
- Ensure proper storage and disposal of Hazardous waste.
- Massive green belt development program for dust suppression as well as noise Control.
- Provision bag filters /dust collectors in all material transfer points.
- The pollution auto control equipment's are always maintained in healthy condition and are run as an integral part of production process.
- Dust suppression over the roads by using proper water sprinkling.
- Atomized water spray system at Limestone & Coal handling areas.
- The Sewage Treatment Plant treated water is completely used for Horticulture purpose.

- The sludge form Sewage Treatment Plant used as manure for plantation purpose.
- The valuable raw materials/finished products are recovered from the Pollution
 Control facility and reused in the process

ZCL developed procedure for handling of waste (i.e., both Hazardous and Non Hazardous).





Awards

Excellent Energy Efficient Plant from CII



Environment award "Greenco Gold rating Award" From CII



"AP Green Award" From AP GOVT



Environment award "Platinum rating Award From Apex_____



ZCL has developed the new innovative product Superlite AAC Blocks. Zuari has launched Superlite AAC Blocks. This product was the first product in India to obtain the "Green Product Certification" from CII-IGBC.

<u>Green product:</u> ZCL received certification (GreenPro) for PPC cement from Confederation of Indian Industry.





CSR

1. Promotion of Education:

Support to local village schools by way of donating books and furniture on need basis Merit scholarships to Engg. and MBBS students. Providing Quality education to employees children and near by village children through DAV institution school in colony.

2. Health and Medical Support:

Includes organizing Super specialty Health camps at Health for employees and villagers and medical camps in 4 villages, General Health check up and distribution of medicines to the local villagers from Zuari Cement Health Center.

3. Rural Development & Village Infrastructure:

Providing Drinking water through RO plants. Providing public toilets, drainage facilities, dust bins and village internal CC / Gravel roads and street lights.

4. Skill development and Self employment programs:

Organizing skill development training for women from the villages in the areas of Tailoring and screen printing, Agarbatti manufacturing making them self empowered.

CSR: Skill Development programs:

Since last couple of years skill development programs to the local village women as a part of women empowerment program, the women were given training in the arrears of tailoring, screen printing, agarbatti making. The produced made by these women where displayed on specially organised function in colony as well as corporate office, Bangalore.

HEALTH PROGRAMME

1. Rural Health Camps

Under our Health programme, our Health Centre is contributing to serve the society at large. All the nearby villages are regularly getting benefitted from our Health Centre. Apart from this we regularly organize Rural Health camps.

Our Company doctor and nurses are available round the clock at the Health Centre for medical check-up, consultation. Free medicines are provided to villagers. These Health Centre are directly beneficial for the villagers particularly expecting mothers, children, rural girls and old age person.

Through our hospital all the medicines are providing free of cost to nearby community members.

2. Mega Multi-speciality Health camps

Mega Health check-up & consultation camp are regularly being organized for the nearby villages. In the Mega Health camp various multi-speciality doctors from Well known Hospitals from Hyderabad have provided their services to the villagers in the areas of Opthalmology-Eye Camps, Orthopeadic and Heart Speciality

Environmental Statement for the year 2021-22 Zuari Limestone mines, Yerraguntla, Kadapa-A.P

The free health check-up, consultation & free medicines services are provided through this camp.

3. Health Awareness to School Children:

Our Company doctor is also regularly giving Health Awareness training programmes for the school children ranging from seasonal health issues and various age related health issues.

LIVELIHOOD PROGRAMME

Skill Development Training to rural women & girls

Under Skill India Campaign, a model training centre is developed near our unit. Our aim is to provide an opportunity to rural women & girls to enhance their skill through various skill development trainings.

We are continuously providing quality environment to rural women & girls for getting knowledge upgradation & develop own skills.

Through skill development training programmes, now rural women & girls are able to generate income through small sewing & stitching works at village level. The quality computer training facility is also being provided through this centre.

Through various skill training agencies the quality training programmes were organized through the whole year.

l J
7707
/ear
for the year
for
Statement
nmental
Caviro

Amount -Lacks 51.1	31.4 9.39 7.95 7644
No.of Beneficiaries benefitted 968	37150 3000 81 27666
Focus Area (Education/health & Medical Support/ Skill development/ Rural Development)	Sk Ru He
CSR Project/ Activity Identified	Promotion of Education Health & Medical Support Rural Development & Infrastructures Livelihood Enhancement & Social Engagement Programs. TOTAL
S. No	L 2 & 4