

Zuari Cement Limited

CIN: U26942AP2000PLC050415 Krishna Nagar, Yerraguntla, District Kadapa. Andhra Pradesh - 516311. Tel: +91 85632 75107 / 08 Fax: +91 85632 75101 / 64 www.zuaricements.com

ZCL/ENV/EC/PLANT/2025/Maylo

Date: 29.05.2025

To. Ministry of Environment, Forests & Climate Change, IA Division, Paryavaran Bhavan, C.G.O. Complex, Lodhi Road, New Delhi-110003.

Dear Sir.

Sub: Environmental Clearance Six monthly Compliance conditions Report of our M/s Zuari Cements Ltd, located in Krishnagar, Yerraguntla, District Y.S.R Kadapa – A.P.

Ref: - Environment Clearance letter No. J-11011/310/2008-IA-II-(I) dated 22.09.2008.

With reference to the above subject and referred letter, we are submitting herewith the point wise compliance of conditions of above environmental clearance letter for the period from Oct 2024 to March 2025.

Thanking you,

Yours faithfully For Zuari Cement Limited

GGK Murthy Head - Works

Encl: As above

Cc to:

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

The Member Secretary Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, APIIC Colony Road, Gurunanak Colony, Autonagar, Vijayawada- 520007.

The Environment Engineer, Andhra Pradesh Pollution Control Board, Regional Office, 1st Floor, D.No.72/272-5-18, Kurnool-Chittoor NH 40 Road, Near Vinayaka Nagar Circle, Kadapa – 516003.















Project Code:

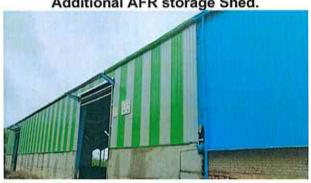
- 1. Name Of the Project: Zuari Cement Ltd
- 2. Clerance Letter No. With date: J-110113102008-IA-II-(I) dated 22.09.2008
- 3. Period of Compliance Report: October 2023 to March 2024.

I.Specific Condations:

S.No	Conditions	Compliance Status
ſ,	The company shall provide Electrostatic Precipitator (ESP) to Kiln, Raw Mill, Cement Mill in existing plant and bag filters to the Cement Mill, Raw Mill, Crushers, storage silos etc for control of Particulate emissions. The stack emissions from various sources shall not exceed 50mg/NM3.	All the pollution control equipment's are designed for particulate emission well within the prescribed limit. We had replaced ESP's by Baghouse at Line-1, Kiln, Calciner, Cement mill-2 & 3 for better Emission control. Replaced L-1 C line ESP by Baghouse Replaced L-1 K line ESP by Baghouse Replaced L-1 K line ESP by Baghouse
li.	Bag House / Filter shall be provided to control the fugitive emissions generated during material transfer, packing, loading and unloading. The project authorities shall store all raw materials except limestone in covered sheds to control emissions.	Bag filters /dust collectors are installed at various transfer points to reduce the fugitive emissions. Raw materials stored under covered shed. Storage Sheds Lime stone Shed Additives Shed Coal Shed Coal Shed Cilnker Silo



Additional AFR storage Shed.



Ambient air quality stations are installed down upwind and max. ground concentration locations in consultation with APPCB. Ambient air monitoring & Stack emission monitoring has been monitored on monthly basis and same is submitting to APPCB and half yearly submitting to the ministry.

3 nos. of Online Ambient Air Quality Monitoring Stations 10 no's Continuous Emission monitoring system installed at all main stacks. Data connected to APPCB/CPCB website.

CAAQMS station

The location of Ambient Air Quality Monitoring stations shall be set up as per statutory requirement in consultation with the Andhara Pradesh Pollution Control Board (APPCB) and additional stations will be installed if required in the downwind direction as well as where maximum ground level concentrations are anticipated.





CEMS







The project authorities shall make all out efforts to use high calorific value hazardous waste in the Kiln and accordingly, necessary provisions in Kiln	uid waste feeding System as per the idelines.		
Par Liqu	e are using biomass, RDF Waste & Pharma ste as Alternative Fuel in our kiln. nt has covered storage shed with Solid &		
The company shall obtain prior permission for draw of ground water from the Central Ground Authority /Central Ground Water Board and a copy shall be submitted to the Ministry's regional office in Bangalore within three months from date of issue of this letter.	GWA does not Issue NOC for Groundwater chdrawal in Andhra Pradesh and industries ed to obtain NOC form state govt bodies. We we obtained Permission from State ground atter authority. The are meeting our water requirement from our ne pit only (harvested water). No ground atter is using for industrial purpose.		
Total Ground water requirement shall not exceed 1500KLD. The project authorities shall install Sewage treatment plant to treat domestic sewage and treated water shall be utilized for green development. No wastewater shall be discharged outside of the premises and 'zero' discharge shall be ensured.			



		Shedder
vii.	The Fly ash generated from Captive Power Plant shall be handled in dry silos and shall be utilized 100% for manufacture of Pozzolana Cement	There is no CPP in our plant, hence not applicable.
viii.	The project authorities shall transport Raw Materials and product in covered means.	All raw materials and products transporting through covered trucks/wagons.
ix.	The green belt shall be developed in minimum 33% of the project area as per the guide lines of Central Pollution Control Board to mitigate the effect of fugitive emission.	Tree plantation is our on-going process and we had developed green belt 42% of the plant area. 2024-5 plantation: 2200
x.	The project authorities shall provide a health centre with all emergency medicines and ambulance along with full time doctor. Occupational health surveillance of the worker shall be carried on a regular basis and record shall be maintained as per the factories act.	The OHC Centre is equipped clinical laboratory, ECG, X-ray, spirometer, audiometer, ultrasound scanning, eye testing equipment and nebulizer. Once in a six months lung function test & sputum analysis is being done and all records are maintained. Hospital Staff: Total 7 Members which include one male and one female doctor's qualification with MBBS, 3 male nurses, 1 sister, 1 dresser,



		NAME OF THE PARTY
		1 female attendant. Our health centre building consists of 2 consultation rooms for doctors, 3 in patient beds, one emergency room with all emergency equipment to deal all emergency cases, 1 dressing room, 1 pharmacy storeroom.
xi.	The company shall comply with all the stipulations made in the environmental clearances issued to the plant by the Ministry.	Complying all the environment clearance conditions issued by the Ministry.
xii.	The company shall prepare the conservation plan for the reserve/protected forest located within a radius 5 Km from the plant and submit to State Forest department A.P. and recommendations, if any shall be implemented.	There is NO any schedule-I Flora and Fauna as per divisional forest officer issued letter No RC NO:2327/2006-P4 dated 10.10.2006.
xiii.	All the recommendations mentioned in the CREP guidelines for cement shall be followed and complied.	
xiv.	The company shall obtain separate environmental clearance for the limestone mines from the Ministry for the enhanced capacity.	We have obtained Environment clearance from the Ministry for captive limestone mining vide J-110155232008-IA.II (M), dated 06.07.2009 & J-110155232008-IA.II (M), dated 12.4.2010.

II.General Condations:

S.No	Conditions	Compliance Status					
l.	The project authorities shall strictly adhere to the stipulations of the APPCB/State Government or any other statutory body.						



II.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forest. In case of deviations or alterations in the project proposal from those submitted to the Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of the condition imposed and to add additional environmental protection measures required, if any.	Prior approval will be obtained from the Ministry in case expansion / modification required.
iii.	The gaseous emissions (So2/NOx) and particulate matter levels from various process units shall conform to standards prescribed by the concerned authorities from time to time. At no time, the emissions shall not exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	The gaseous and particulate emissions are being maintained well within the limit and monitored on monthly basis. Interlocking provided to all air pollution control equipments. Latest Report is enclosed as Annexure-I. 3 nos. of Online Ambient Air Quality Monitoring Stations(CAAQMS) and 10 nos Continuous Emission Monitoring System (CEMS) are installed & connected to APPCB and CPCB website.
iv.	The company shall undertake following Waste Minimization measures: Reuse of by-products from the process at raw materials or as raw material substitutes in other processes. Use of "Closed pneumatic" system for transport of line Material. All venting systems shall be connected with dust arresting equipments. dust collected in pollution control equipment's shall be reused.	We are using fly ash /wet fly ash in our cement manufacturing process. Material / Dust collected from pollution control equipment's is reused in process.
v.	Fugitive emissions in the work zone environment, product, and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits stipulated by the state Pollution Control Boards/Central Pollution Control Board.	3 nos sweeping machines are operated for road sweeping in plant and colony. Apart from this manually operated floor sweeping machines are in operation for good housekeeping. Fugitive dust monitoring is done on regular basis and all measures taken to control fugitive dust emissions.



vi.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc., on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules. 1989 viz., 75dBA (day time) and 70 dBA (night time).	Noise less compressors installed and all main equipments are covered with noise proof sheets. Noise level maintaing well within the limit. Latest report is enclosed as Annexure-I.
VII.	The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended and	We have state of art technology for hazardous waste co processing facility with storage shed.



viii.	Rainwater harvesting shall be done within the premises. Ground water recharge structures shall be installed around the plant area in consultation with local authorities to contain the ground water table.	Rainwater harvesting is implemented adequate capacity sump has been developed for harvested water storage and harvested water is being used for green belt development and for plant, mines operations.
ix.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	Eco-development measures have been taken including implementation of self-sustain income generating programmes candle making, Stitching & etc. Roads are constructed and RO water facility has been provided for nearby villages. Implemented self-sustain income generating programmes candle making, Stitching & etc.



r						
	The project authorities shall earmark the adequate fund to implement the conditions stipulated by the Ministry of Environment and Forests as well	S.NO Activity Total 1 Air pollution control Equipments 7854444 2 RO plants 421738				
x.	as the state government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	3 Environmental monitoring 819565				
xi.	Separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	A separate Environmental Management cell is established under the control of senior executive and direct reporting to the head of the organization who is responsible for environmental management and deal with the environmental issues and for ensuring compliance with the conditions stipulated in various clearances and consents.				
xii.	The implementation of the project vis-à-vis environmental action plans Shall be monitored by the concerned Regional Office of the ministry/SPCB/CPCB.A six monthly compliance status reports shall be submitted to monitoring agencies and shall be posted on the website of the Company.	Six monthly compliance report is being submitted to the ministry and uploading the compliance report in our website www.zuaricements.com .				
xiii.	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned regional Office of the Ministry.	Complied. EC Paper Advertisement Zuarl Cement Limited has been accorded Environmental Clearance (F.No: J-11011/310/2008-IA-II (I), dated 22nd September 2008) for cament and clinker production as detailed below Unit - I (Existing): By up-gradation Clinker increase is from 1.815 to 2.00 MTPA Cement is from 2.08 to 2.50 MTPA Unit - II (Under implementation): By increase of unit sizes Clinker increase is from 1.56 to 2.30 MTPA Cement is from 2.31 to 2.90 MTPA Copies of the clearance letter are available with A.P. Poliution Control Board and can also be seen at website of the MOEF at intp://envior.nic.in ZUARI CEMENT LIMITED Kristos Negar 516.311, Yorraguntis (Mandal).				
xiv.	The project authorities shall inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied				



Annexure-I



Zuari Cement Limited
CIN: U26942AP2000PLC050415
Krishna Nagar, Yerraguntla,
District Kadapa,
Andhra Pradesh - 516311,

Tel: +91 85632 75107 / 08 Fax: +91 85632 75101 / 64 www.zuaricements.com

ZCL/ YA/ EM /2025/PP 204/ Date:23.04.2025

To
The Member Secretary
Andhra Pradesh Pollution Control Board,
Paryavaran Bhavan,
APIIC Colony Road, Gurunanak Colony,
Autonagar, Vijayawada- 520007

Dear Sir,

Please find enclosed the reports of Stack Emissions, Ambient Air Quality, Wastewater quality and Ambient Noise Quality data of Zuari Cement Plant –Yerraguntla for the month of March 2025.

Thanking you,

Yours faithfully For Zuari Cement Ltd

GGK Munthy Head-Works

Encl: As above

cc:

The Environment Engineer, Andhra Pradesh Pollution Control Board, Regional Office, 1st Floor, D.No.72/272-5-18, Kurnool-Chittoor NH 40 Road, Near Vinayaka Nagar Circle, Kadapa – 516003













	S.NO	bient Air Quality						
	3.140	Location	Do					
	1	1	Paramete	er	PM ₁₀			200
	-		12		μg/m3	PM _{2.5}		NO
	1.	THE PART OF THE PA	Limit		100	µg/m3	µg/m3	
	2.	Near Store				60	80	80
	3.	Near Mines Office			53.1	24.7	12.6	
	4.	Near Pumphouse			41.9	18.6	6.1	24.
	TT Ch-	· ampilouse			58.7	25.8	10.3	18.
	11.5(8)	ck Emissions in Line-I			45.3	22.4	7.8	22.:
	1.	Kiln+Rawmill-1 Baghouse					/.0	19.2
ł	2.				10.6			
+		Calciner +Rawmill-2 Baghou	C Δ		18.2	2		
	3.	Cooler ESP			16.8			
		Coalmill-1Baghouse-1						
	5.	Controlled Toolse-1			26.6			
-		Coalmill-1Baghouse-2			22.7		7	
	6.	Coal mill-2 Baghouse			24.2		+	
	7. (Cement mill-1 Baghouse			23,6		30m	ng/Nm³
	8. 0	emont will a						
-	0.	ement mill-2 Baghouse			lot in oper	ation		
	9. C	ement mill-3 Baghouse			16.9		1	
I^{-}	10. D	G Set 1500KV					-	
-					19.1			
	11. Do	G Set 750 KV		No	ot in opera	tion	75mg/Nm ³	
		Emissions in Line-II		INC	t in opera	tion	75mg/Nm ³	
	1. Kili	n+Rawmill+Cooler Baghouse						
	2. Coa	al mill 3.0			10.			
	3. Cer	al mill -3 Baghouse			18.4			
_		nent Mill-4 Baghouse			16.1			
	4. Cru	sher-3 Bagfilter			14.6		30mg/	Mm.3
		"ginter					oomg/	141112
IIT	Water	-			27.6			
-41,	water A	Inalysis Reports		nll	BOD	COL	S.S	011.0
				рH	mg/Ltr	mg/L	0.0	Oil &
.imi	ting Sta	andards at Outlet		1			1119/11	T. Cusc
1	. STP -	-Treated Effluent		E F O O				mg/Ltr
		cated Effluent		5.5 -9.0	100	250	100	10
V.Δ ι	mhiant	Noise levels		7.58	05	10	08	10
		voise levels		Daviti	Night			<1.0
1.	1 101111	Boundary -East		Day time	time	Day -	Night	Line
2.	Planrt	Boundary -West		63.9	58.1	Limit	MIGHT	-Limit
3.	Planrt	Boundary –North		64.2				
4.	Dland	-North			59.5		1	
	Planrt	Boundary –South		60.8	55.6			
5.	Near H	ealth Centre		58.4	53.2	75dB	70d	D
6.	Near N	ew Guest house		55.7			/00	D
		- Cuest House		59.6	50.8	1		
				39.h	54.9		· I	I.i.

Note: Line-1 Cooler ESP trippings: NIL



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TEST REPORT

ANNEXURE - 2

Date: 04-4-2025

REF.NO: LAWN/ZCL/AAQ/009/2025

AMBIENT AIR QUALITY DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Code	A-1	A-2	A-3	A-4	1		
Date	27-3-2025 to 28-3-2025	27-3-2025 to 28-3-2025	27-3-2025 to 28-3-2025	27-3-2025 to 28-3-2025	1		
Starting Time	8.10 am	8.35 am	9.10 am	9.45 am	Standards (24 hourly	PROTOCOL/	
Ending Time	8.10 am	8.35 am	9.10 am	9.45 am	standard)	TEST METHO	
Locations	Near Main Gate	Near Stores	Near Mines Office	Near Pump House			
PM10	53.1	41.9	58.7	45.3	<100 (μg/m³)	IS-5182 (Part-23); 2017 / Gravimetric Method	
PM _{2.5}	24.7	18.6	25.8	22.4	<60 (μg/m³)	IS-5182 (Part-24); 2019 / Gravimetric Method	
So ₂	12.6	6.1	10.3	7.8	<80 (μg/m³)	IS-5182 (Part-2); 2018 / New West &Gaeke Method	
No ₂	24.2	18.4	22.3	19.2	<80 (μg/m³)	IS-5182 (Part-6); 2017 / JACOB &Hochheiser Method	
со	<1.0	<1.0	<1.0	<1.0	<2.0(mg/m³) (8 hrs)	IS-5182 (Part-10); 2019 GC Method	

 $1.\ RESPIRABLE\ DUST\ SAMPLER\ MODEL/SL. NO.RDS\ 2161-DTH-2011,\ CALIBRATED\ ON\ 06-01-2025,\ DUE\ ON\ 05-01-2026$

2. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2461-DTA-2019, CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

 $3.\ RESPIRABLE\ DUST\ SAMPLER\ MODEL/SL. NO.RDS\ 2463-DTA-2019,\ CALIBRATED\ ON\ 06-01-2025,\ DUE\ ON\ 05-01-2026$

 $4.\ RESPIRABLE\ DUST\ SAMPLER\ MODEL/SL. NO.RDS\ 2464-DTA-2019,\ CALIBRATED\ ON\ 06-01-2025,\ DUE\ ON\ 05-01-2026$

1. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 16-I-623), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

2. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-F-731), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

 $3. \ \ \text{FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. \ 17-J-750), CALIBRATED ON 06-01-2025, DUE \ ON \ 05-01-2026}$

4. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-751), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026



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Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/001/2025

ANNEXURE - 1

Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	_	Res	ults		
	Parameters	Kiln + Raw Mill - 1	Calciner + Raw Mill - 2	LIMITS	PROTOCOL
1	Date of Sampling	28-3-2025	28-3-2025		
2	Stack diameter (m)	4.25	2.98		
3	Stack cross sectional area (m²)	14.1790	6.971		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	35	33		
6	Flue gas temperature (°C)	119	96		IS-11255
7	Exit velocity of flue gases (m/sec)	9.12	17.23		(Part-3); 2018 IS-11255
8	Flow rate (Nm ³ /hr)	3,45,188	3,41,301		(Part-3); 2018 IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	18.2	16.8	<30	(Part-3); 2018 IS-11255
10	PM Load based standard Kg/ton of clinker	0.0310	0.0282	<0.125	(Part-1); 2019 CPCB Standard

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/002/2025

ANNEXURE - 1 Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cooler	Coal Mill - I	LIMIT	PROTOCOL
1	Date of Sampling	28-3-2025	28-3-2025		
2	Stack diameter (m)	4.0	1.0		
3	Stack cross sectional area (m²)	12.56	0.785		
4	Pollution Control Equipment	ESP	Bag House – 1	Bag	
5	Ambient temperature (C)	35	34	House	
6	Flue gas temperature (°C)	128	81		IS-11255
7	Exit velocity of flue gases (m/sec)	7.26	11.68		(Part-3); 2018 IS-11255
8	Flow rate (Nm³/hr)	2,39,812	27,293		(Part-3); 2018 IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	26.6	22.7	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATOR

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



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ISO 9001, 14001 & 45001

TEST REPORT

REF.NO: LAWN/ZCL/STACK/003/2025

ANNEXURE - 1 Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Coal Mill - I	Coal Mill - II	LIMIT	PROTOCOL
1	Date of Sampling	28-3-2025	27-3-2025		
2	Stack diameter (m)	1.32	1.50		
3	Stack cross sectional area (m²)	1.367	1.766		
4	Pollution Control Equipment	Bag House - 2	Bag House		
5	Ambient temperature (C)	33	34		
6	Flue gas temperature (°C)	74	76		IS-11255
7	Exit velocity of flue gases (m/sec)	12.03	11.78		(Part-3); 2018 IS-11255
8	Flow rate (Nm³/hr)	49,883	62,805		(Part-3); 2018 IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	24.2	23.6	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]

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TEST REPORT

REF.NO: LAWN/ZCL/STACK/008/2025

ANNEXURE - 1

Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill- I Bag House	LIMIT	PROTOCOL
1	Date of Sampling			
2	Time of Monitoring			
3	Stack diameter (m)	Fi		
4	Stack cross sectional area (m²)			
5	Pollution Control Equipment			
6	Ambient temperature (C)	Shut down		
7	Flue gas temperature (°C)			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)			IS-11255 (Part-3); 2018
9	Flow rate (Nm ³ /hr)			IS-11255
10	Suspended particulate matter Concentration (mg/N m³)	-	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]

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ISO 9001, 14001 & 45001

TEST REPORT

REF.NO: LAWN/ZCL/STACK/004/2025

ANNEXURE - 1

Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Res	ults		
S.No.	Parameters	Cement Mill - II	Cement Mill - III	LIMIT	PROTOCOL
1	Date of Sampling	27-3-2025	27-3-2025		
2	Stack diameter (m)	1.12	1.12		
3	Stack cross sectional area (m²)	0.984	0.984		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	35	36		
6	Flue gas temperature (°C)	88	86		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	7.35	6.12		IS-11255
8	Flow rate (Nm ³ /hr)	21,145	17,692		(Part-3); 2018 IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	16.9	19.1	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/007/2025

ANNEXURE - 1 Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	1500 KVA D.G. Set	4x750 KVA D.G.Sets	LIMIT	PROTOCOL	
1	Date of Sampling					
2	Time of Monitoring					
3	Stack diameter (m)					
4	Stack cross sectional area (m²)					
5	Pollution Control Equipment					
6	Ambient temperature (C)		Shut down			
7	Flue gas temperature (°C)	Shut down			IS-11255 (Part 3): 2018	
8	Exit velocity of flue gases (m/sec)				(Part-3); 2018 IS-11255	
9	Flow rate (Nm³/hr)				(Part-3); 2018 IS-11255	
10	Suspended particulate matter Concentration (mg/N m³)			<115	(Part-3); 2018 IS-11255 (Part-1); 2019	
11	Sulphur Dioxide (SO ₂)				IS-11255 (Part-2); 2019	
12	Oxides of Nitrogen (NO _x)				IS-11255 (Part-7); 2017	

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/005/2025

ANNEXURE - 1

Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Resu	ılts			
S.No.	Parameters	Kiln + Raw Mill + Cooler	Coal Mill - III	LIMITS	PROTOCOL	
1	Date of Sampling	28-3-2025	27-3-2025		-	
2	Stack diameter (m)	11.67	2.10			
3	Stack cross sectional area (m²)	106.908	3.461			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	34	36			
6	Flue gas temperature (°C)	113	72		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	3.14	10.91		IS-11255	
8	Flow rate (Nm ³ /hr)	9,14,449	1,15,502		(Part-3); 2018 IS-11255	
9	Suspended particulate matter Concentration (mg/N m³)	18.4	16.1	<30	(Part-3); 2018 IS-11255 (Part-1); 2019	
10	PM Load based standard Kg/ton of clinker	0.0722		<0.125	CPCB Standard	

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/006/2025

ANNEXURE - 1

Date: 04-4-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill - IV	Crusher-III	LIMIT	PROTOCOL
1	Date of Sampling	27-3-2025	28-3-2025		
2	Stack diameter (m)	3.80	1.20		
3	Stack cross sectional area (m²)	11.335	1.130		
4.	Pollution Control Equipment	Bag House	Bag Filter		
5	Ambient temperature (C)	35	36		
6	Flue gas temperature (°C)	90	47		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	8.67	12.35		IS-11255
8	Flow rate (Nm³/hr)	2,84,998	46,058		(Part-3); 2018 IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	14.6	27.6	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

ANNEXURE - 4

Date: 04-4-2025

REF.NO: LAWN/ZCL/WW/011/2025

WASTE WATER ANALYSIS

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Date of Collection

28-3-2025

Date of Analysis :

29-3-2025

PROTOCOL

A.P.H.A. 24th Edition, 2017 & IS 3025

			STP OUTLET		
S.No.		PROTOCOL	STP Outlet Water	GSR 422E (Inland surface	
1	Colour (Hazen Units)	IS:3025 (Part-4)	<5	water) See Note - 1	
2	Odour	IS:3025 (Part-5)	Agreeable	See Note - 1	
3	pH	IS:3025 (Part-11)	7.58	5.5 - 9.0	
4	Oil & Grease, mg/l	IS:3025 (Part-39)	<1.0	10	
5	Total Suspended Solids, mg/l	IS:3025 (Part-17)	08	100	
6	Total Dissolved Solids at 105 °C, mg/l	IS:3025 (Part-16)	481	2,100	
7	Bio Chemical Oxygen Demand for (3 days at 27°C), mg/l	IS:3025 (Part-44)	05	30	
8	Chemical Oxygen Demand, mg/l	IS:3025 (Part-58)	10	250	
9	Chlorides as Cl, mg/l	IS:3025 (Part-32)	119	1,000	
10	Fluorides as F, mg/l	4500 F-D APHA 22 nd Edn 2012	0.43	2.0	
11	Dissolved Phosphate as P, mg/l	IS:3025 (Part-31)	0.10	5.0	
12	Percent Sodium	IS:2296-1982	7.60		
13	Sulphide as S, mg/l	IS:3025 (Part-29)	<1.0	2.0	
14	Boron as B, mg/l	IS:3025 (Part-57)	0.06	2.0	
15	Residual Sodium Carbonate, mg/l	IS:11624	Nil		
16	Sulphates as SO ₄ , mg/l	IS:3025 (Part-24)	78	1,000	
	Iron as Fe, mg/l	IS:3025 (Part-53)	0.10	3.0	
18	Total Volatile Suspended Solids, mg/l	IS:3025 (Part-18)	3.10		

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TEST REPORT

REF.NO: LAWN/ZCL/NOISE/013/2025

ANNEXURE - 5

Date: 04-4-2025

NOISE LEVEL DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No	Locations	Equivalent Noise Levels in dB(A				
		Day Time	Night Time			
1	Plant Boundary - East	63.9	58.1			
2	Plant Boundary - West	64.2	59.5			
3	Plant Boundary - North	60.8	55.6			
4	Plant Boundary - South	58.4	53.2			
5	Near Health Centre	55.7	50.8			
6	Near New Guest House	59.6	54.9			

Note: 1. Noise levels are monitored on 27-3-2025.

- 2. Instrument Make: Lutron SL-4001/G-49271, Calibrated On 20-02-2025, Due On 19-02-2026.
- 3. Day time is reckoned in between 6.0 am and 10.0 pm Limit 75 dB (A).
- 4. Night time is reckoned in between 10.0 pm and 6.0 am Limit 70 dB (A).

AUPHORISEDSIONATORY



Zuari Cement Limited CIN: U26942AP2000PLCO50415

Krishna Nagar, Yerraguntla, District Kadapa, Andhra Pradesh - 516311, Tel: +91 85632 75107 / 08 Fax: +91 85632 75101 / 64

www.zuaricements.com

ZCL/ YA/ EM /2025/Ma ro6 Date:25.03.2025

To The Member Secretary Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, APIIC Colony Road, Gurunanak Colony, Autonagar, Vijayawada- 520007

Dear Sir,

Please find enclosed the reports of Stack Emissions, Ambient Air Quality, Wastewater quality and Ambient Noise Quality data of Zuari Cement Plant -Yerraguntla for the month of Feb 2025.

Thanking you,

Yours faithfully For Zuari Cement Ltd

GGK Murthy Head-Works

Encl: As above

CC:

The Environment Engineer, Andhra Pradesh Pollution Control Board, Regional Office, 1st Floor, D.No.72/272-5-18, Kurnool-Chittoor NH 40 Road, Near Vinayaka Nagar Circle, Kadapa - 516003













Feb 2025

S.NO	ient Air Quality Location	Parameter—	► PM ₁₀	PM _{2.5}		02	NOX	
5.NO	Location	Parameter——	▶ PM10 μg/m3	PM2.5 μg/m3		/m3	µg/m3	
		Limit	100	60		80	80	
1.	Near Main Gate		57.4	26.8	1	0.4	20.7	
2.	Near Store		46.5	17.9		5.7	15.8	
3.	Near Mines Office		53.6	22.4		9.2	19.6	
4.	Near Pumphouse		49.8	19.2	8	3.6	17.5	
II.Sta	ck Emissions in Line-I							
1.	Kiin+Rawmill-1 Baghous	e		14.6				
2.	Calciner +Rawmill-2 Bag	house		17.7				
3.	Cooler ESP			20.8				
4.	Coalmill-1Baghouse-1			17.7				
5.	Coalmill-1Baghouse-2			19.4		30mg/Nm ³		
6.	Coal mill-2 Baghouse			20.3				
7.	Cement mill-1 Baghouse		Not in	operation				
8.	Cement mill-2 Baghouse			20.1				
9.	Cement mill-3 Baghouse		19.1					
10.	0. DG Set 1500KV		Not in	operation	75m	ng/Nm³		
11.	11. DG Set 750 KV		Not in	operation	75m	ng/Nm³		
Sta	nck Emissions in Line-I	r						
1.	Kiln+Rawmill+Cooler Ba	ghouse		14.0				
2.	Coal mill -3 Baghouse			19.3			2	
3.	Cement Mill-4 Baghouse			21.4		30mg/Nm ³		
4.	Crusher-3 Bagfilter			24.2				
III.Wa	nter Analysis Reports		рН	BOD mg/Ltr	COD mg/Ltr	S.S mg/Ltr	Oil & Greas	
							mg/Lt	
Limitir	ng Standards at Outlet		5.5 -9.0	100	250	100	10	
1.	STP -Treated Effluent		7.40	06	12	10	<1.0	
IV.Am	bient Noise levels		Day time	Night time	Day - Limit	Night	-Limit	
1.	Planrt Boundary -East		62.6	57.2				
2.	Planrt Boundary -West		63.9	58.6				
3.	Planrt Boundary -North		61.4	56.7			_	
4.	Planrt Boundary -South		59.5	54.5	75dB	70)dB	
5.	Near Health Centre		54.8	49.8				
6.	Near New Guest house		57.6	52.9				

Note: Line-1 Cooler ESP trippings: NIL



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TEST REPORT

REF.NO: LAWN/ZCL/AAQ/009/2025

ANNEXURE - 2

Date: 05-3-2025

AMBIENT AIR QUALITY DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Code	A-1	A-2	A-3	A-4		
Date	23-02-2025 to 24-02-2025	23-02-2025 to 24-02-2025	23-02-2025 to 24-02-2025	23-02-2025 to 24-02-2025		
Starting Time	8.30 am	9.00 am	9.30 am	10.00 am	Standards (24 hourly	PROTOCOL/
Ending Time	8.30 am	9.00 am	9.30 am	10.00 am	standard)	TEST METHO
Locations	Near Main Gate	Near Stores	Near Mines Office	Near Pump House		
PM ₁₀	57.4	46.5	53.6	49.8	<100 (μg/m³)	IS-5182 (Part-23); 2017 / Gravimetric Method
PM _{2.5}	26.8	17.9	22.4	19.2	<60 (μg/m³)	IS-5182 (Part-24); 2019 / Gravimetric Method
So ₂	10.4	5.7	9.2	8.6	<80 (μg/m³)	IS-5182 (Part-2); 2018 / New West &Gaeke Method
No ₂	20.7	15.8	19.6	17.5	<80 (μg/m³)	IS-5182 (Part-6); 2017 / JACOB &Hochheiser Method
со	<1.0	<1.0	<1.0	<1.0	<2.0(mg/m³) (8 hrs)	IS-5182 (Part-10); 2019 GC Method

AUTHORISED SIGNATORY

- 1. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2161-DTH-2011, CALIBRATED ON 06-01-2025, DUE ON 05-01-2026
- 2. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2461-DTA-2019, CALIBRATED ON 06-01-2025, DUE ON 05-01-2026
- $3.\ RESPIRABLE\ DUST\ SAMPLER\ MODEL/SL. NO.RDS\ 2463-DTA-2019,\ CALIBRATED\ ON\ 06-01-2025,\ DUE\ ON\ 05-01-2026$
- $4.\ RESPIRABLE\ DUST\ SAMPLER\ MODEL/SL. NO.RDS\ 2464-DTA-2019,\ CALIBRATED\ ON\ 06-01-2025,\ DUE\ ON\ 05-01-2026$
- 1. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 16-I-623), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026
- 2. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-F-731), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026
- 3. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-750), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026
- 4. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-751), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/001/2025

ANNEXURE - 1

Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Res	ults			
S.No.	Parameters	Kiln + Raw Mill - 1	Calciner + Raw Mill - 2	LIMITS	PROTOCOL	
1	Date of Sampling	25-02-2025	25-02-2025			
2	Stack diameter (m)	4.25	2.98			
3	Stack cross sectional area (m²)	14.1790	6.971			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	32	30			
6	Flue gas temperature (°C)	102	101		IS-11255	
7	Exit velocity of flue gases (m/sec)	9.80	18.20		(Part-3); 2018 IS-11255 (Part-3); 2018	
8	Flow rate (Nm ³ /hr)	3,88,159	3,55,935		IS-11255	
9	Suspended particulate matter Concentration (mg/N m³)	14.6	17.7	<30	(Part-3); 2018 IS-11255 (Part-1); 2019	
10	PM Load based standard Kg/ton of clinker	0.0291	0.0323	<0.125	CPCB Standard	

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/002/2025

ANNEXURE - 1 Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cooler	Coal Mill - I	LIMIT	PROTOCOL
1	Date of Sampling	25-02-2025	25-02-2025		
2	Stack diameter (m)	4.0	1.0		
3	Stack cross sectional area (m²)	12.56	0.785		
4	Pollution Control Equipment	ESP	Bag House – 1	Bag House	
5	Ambient temperature (C)	33	30		
6	Flue gas temperature (°C)	116	77		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	7.83	12.65		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	2,65,584	29,817		IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	20.8	17.7	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

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TEST REPORT

REF.NO: LAWN/ZCL/STACK/003/2025

ANNEXURE - 1 Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh – 516 311.

S.No.	Parameters	Coal Mill - I	Coal Mill - II	LIMIT	PROTOCOL
1	Date of Sampling	25-02-2025	23-02-2025		
2	Stack diameter (m)	1.32	1.50	~-	
3	Stack cross sectional area (m²)	1.367	1.766		
4	Pollution Control Equipment	Bag House – 2	Bag House		
5	Ambient temperature (C)	32	35		
6	Flue gas temperature (°C)	78	73		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	12.41	10.92		IS-11255
8	Flow rate (Nm³/hr)	50,864	58,601		(Part-3); 2018 IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	19.4	20.3	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

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TEST REPORT

REF.NO: LAWN/ZCL/STACK/008/2025

ANNEXURE - 1

Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill- I Bag House	LIMIT	PROTOCOL
1	Date of Sampling			
2	Time of Monitoring	Shut down		
3	Stack diameter (m)			
4	Stack cross sectional area (m²)			
5	Pollution Control Equipment			
6	Ambient temperature (C)			~~~
7	Flue gas temperature (°C)			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)			IS-11255 (Part-3); 2018
9	Flow rate (Nm ³ /hr)			IS-11255
10	Suspended particulate matter Concentration (mg/N m³)		<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/004/2025

ANNEXURE - 1

Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Res	ults	LIMIT	PROTOCOL
		Cement Mill - II	Cement Mill - III		
1	Date of Sampling	24-02-2025	24-02-2025		
2	Stack diameter (m)	1.12	1.12		
3	Stack cross sectional area (m²)	0.984	0.984		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	33	32		
6	Flue gas temperature (°C)	82	85		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	7.7	6.98		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	22,474	20,183		IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	20.1	19.1	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]

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TEST REPORT

ANNEXURE - 1 Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

REF.NO: LAWN/ZCL/STACK/007/2025

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	1500 KVA D.G. Set	4x750 KVA D.G.Sets	LIMIT	PROTOCOL
1	Date of Sampling				
2	Time of Monitoring				
3	Stack diameter (m)				
4	Stack cross sectional area (m²)		Shut down		
5	Pollution Control Equipment				
6	Ambient temperature (C)				
7	Flue gas temperature (°C)	Shut down			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)				IS-11255
9	Flow rate (Nm³/hr)				(Part-3); 2018 IS-11255 (Part-3); 2018
10	Suspended particulate matter Concentration (mg/N m³)			<115	(Part-3); 2018 IS-11255 (Part-1); 2019
11	Sulphur Dioxide (SO ₂)				IS-11255 (Part-2); 2019
12	Oxides of Nitrogen (NO _x)				IS-11255 (Part-7); 2017

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026

M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/005/2025

ANNEXURE - 1

Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Resu	ılts		PROTOCOL
S.No.	Parameters	Kiln + Raw Mill + Cooler	Coal Mill - III	LIMITS	
1	Date of Sampling	22-02-2025	23-02-2025		
2	Stack diameter (m)	11.67	2.10		
3	Stack cross sectional area (m²)	106.908	3.461		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	35	33		
6	Flue gas temperature (°C)	109	79		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	3.65	11.86		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	9,90,519	1,22,748		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	14.0	19.3	<30	IS-11255 (Part-1); 2019
10	PM Load based standard Kg/ton of clinker	0.0587		<0.125	CPCB Standard

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/006/2025

ANNEXURE - 1

Date: 05-3-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill - IV	Crusher-III	LIMIT	PROTOCOL
1	Date of Sampling	24-02-2025	24-02-2025		
2	Stack diameter (m)	3.80	1.20		
3	Stack cross sectional area (m²)	11.335	1.130		
4	Pollution Control Equipment	Bag House	Bag Filter		
5	Ambient temperature (C)	34	33		
6	Flue gas temperature (°C)	85	45		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	9.26	12.92		IS-11255
8	Flow rate (Nm ³ /hr)	3,08,064	48,275		(Part-3); 2018 IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	21.4	24.2	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



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TEST REPORT

ANNEXURE - 4

Date: 05-3-2025

REF.NO: LAWN/ZCL/WW/011/2025

WASTE WATER ANALYSIS

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Date of Collection

25-02-2025

Date of Analysis

26-02-2025

PROTOCOL A.P.H.A. 24th Edition, 2017 & IS 3025

S.No.	Parameters		STP	OUTLET
		PROTOCOL	STP Outlet Water	GSR 422E (Inland surface
1	Colour (Hazen Units)	IS:3025 (Part-4)	<5	See Note - 1
2	Odour	IS:3025 (Part-5)	Agreeable	See Note - 1
3	pH	IS:3025 (Part-11)	7.40	
4	Oil & Grease, mg/l	IS:3025 (Part-39)	<1.0	5.5 - 9.0
5	Total Suspended Solids, mg/l	IS:3025 (Part-17)	10	100
6	Total Dissolved Solids at 105 °C, mg/l	IS:3025 (Part-16)	454	2,100
7	Bio Chemical Oxygen Demand for (3 days at 27°C), mg/l	IS:3025 (Part-44)	06	30
8	Chemical Oxygen Demand, mg/l	IS:3025 (Part-58)	12	250
9	Chlorides as Cl, mg/l	IS:3025 (Part-32)	108	1,000
10	Fluorides as F, mg/l	4500 F·D APHA 22 nd Edn 2012	0.35	2.0
11	Dissolved Phosphate as P, mg/l	IS:3025 (Part-31)	0.08	5.0
12	Percent Sodium	IS:2296-1982	6.64	
13	Sulphide as S, mg/l	IS:3025 (Part-29)	<1.0	2.0
	Boron as B, mg/l	IS:3025 (Part-57)	0.04	
	Residual Sodium Carbonate, mg/l	IS:11624	Nil	2.0
	Sulphates as SO ₄ , mg/l	IS:3025 (Part-24)	69	1.000
	Iron as Fe, mg/l	IS:3025 (Part-53)	0.11	1,000
18	Total Volatile Suspended Solids, mg/l	IS:3025 (Part-18)	2.55	3.0

AUTHORISED SIGNATORY

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/NOISE/013/2025

ANNEXURE - 5 Date: 05-3-2025

NOISE LEVEL DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No	Locations	Equivalent Noise Levels in dB(A)			
	DI . T	Day Time	Night Time		
1	Plant Boundary - East	62.6	57.2		
2	Plant Boundary - West	63.9	58.6		
3	Plant Boundary - North	61.4	56.7		
4	Plant Boundary - South	59.5	54.5		
5	Near Health Centre	54.8	49.8		
6	Near New Guest House	57.6	52.9		

Note:

- 1. Noise levels are monitored on 25-02-2025.
- 2. Instrument Make: Lutron SL-4001/G-49271, Calibrated On 20-02-2025, Due On 19-02-2026.
- 3. Day time is reckoned in between 6.0 am and 10.0 pm Limit 75 dB (A).
- 4. Night time is reckoned in between 10.0 pm and 6.0 am Limit 70 dB (A).

AUTHORISED SIGNATORY



Zuari Cement Limited CIN: U26942AP2000PLC050415 Krishna Nagar, Yerraguntla,

District Kadapa, Andhra Pradesh - 516311, Tel: +91 85632 75107 / 08 Fax: +91 85632 75101 / 64 www.zuaricements.com

ZCL/ YA/ EM /2025/ Febry Date:21.02.2025

To
The Member Secretary
Andhra Pradesh Pollution Control Board,
Paryavaran Bhavan,
APIIC Colony Road, Gurunanak Colony,
Autonagar, Vijayawada- 520007

Dear Sir,

Please find enclosed the reports of Stack Emissions, Ambient Air Quality, Wastewater quality and Ambient Noise Quality data of Zuari Cement Plant –Yerraguntla for the month of Jan 2025.

Thanking you,

Yours faithfully For Zuari Cement Ltd

GGK Murthy Head-Works

Encl: As above

CC:

The Environment Engineer, Andhra Pradesh Pollution Control Board, Regional Office, 1st Floor, D.No.72/272-5-18, Kurnool-Chittoor NH 40 Road, Near Vinayaka Nagar Circle, Kadapa – 516003















Jan 2025

	ient Air Quality	Davassatass	. 514	DIA		22	NOV	
S.NO	Location	Parameter	PM₁₀ μg/m3	PM _{2.5} μg/m3		D2 /m3	NOX µg/m3	
		Limit	100	60		0	80	
1.	Near Main Gate		55.5	23.2		.6	18.9	
2.	Near Store		48.2	20.5		.5	16.4	
3.	Near Mines Office		50.1	21.9		.3	17.8	
4.	4. Near Pumphouse		43.6	17.4	11	2	21.4	
II.Sta	ck Emissions in Line-I							
1.	Kiln+Rawmill-1 Baghouse			17.1				
2.	Calciner +Rawmill-2 Bag	house		18.7				
3.	Cooler ESP			19.6				
4.	Coalmill-1Baghouse-1			19.3				
5.	Coalmill-1Baghouse-2			20.4		30mg/Nr	m^3	
6.	Coal mill-2 Baghouse			22.1				
7.	Cement mill-1 Baghouse		Not in	operation				
8.	Cement mill-2 Baghouse			19.6				
9.	Cement mill-3 Baghouse		20.6					
10.	10. DG Set 1500KV		Not in	Not in operation		g/Nm³		
11.	11 DG Set 750 KV		Not in	operation	75m	g/Nm³		
Sta	ack Emissions in Line-I	I			-			
1.	Kiln+Rawmill+Cooler Ba	ghouse		18.8				
2.	Coal mill -3 Baghouse			15.4		20 /N-	/Nm³	
3.	Cement Mill-4 Baghouse			18.0		- 30mg/Nm ³		
4.	Crusher-3 Bagfilter			25.4				
III.Wa	ater Analysis Reports		рН	pH BOD COD mg/Ltr mg/Ltr		S.S mg/Ltr	Oil & Greas mg/Lt	
Limitir	ng Standards at Outlet		5.5 -9.0	100	250	100	10	
1.	STP -Treated Effluent		7.51	07	13	11	<1.0	
IV.Am	bient Noise levels		Day time	Night time	Day - Nig		-Limit	
1.	Planrt Boundary -East		60.7	55.4				
2.	Planrt Boundary -West		61.4	56.1				
3.	Planrt Boundary -North		. 64.3	59.5				
4.	Planrt Boundary -South		61.5	56.2	75dB	70)dB	
5.	Near Health Centre		57.2	52.8				
6.	Near New Guest house		59.1	54.9	•			

Note: Line-1 Cooler ESP trippings: NIL



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TEST REPORT

ANNEXURE - 2

Date: 03-02-2025

AMBIENT AIR QUALITY DATA

Name of the Industry &

REF.NO: LAWN/ZCL/AAQ/009/2025

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Code	A-1	A-2	A-3	A-4		
Date	24-01-2025 to 25-01-2025	24-01-2025 to 25-01-2025	24-01-2025 to 25-01-2025	24-01-2025 to 25-01-2025		
Starting Time	8.10 am	8.40 am	9.10 am	9.45 am	Standards (24 hourly	PROTOCOL/
Ending Time	8.10 am	8.40 am	9.10 am	9.45 am	standard)	TEST METHOD
Locations	Near Main Gate	Near Stores	Near Mines Office	Near Pump House		
PM ₁₀	55.5	48.2	50.1	43.6	<100 (μg/m³)	IS-5182 (Part-23); 2017 / Gravimetric Method
PM _{2.5}	23.2	20.5	21.9	17.4	<60 (μg/m³)	IS-5182 (Part-24); 2019 / Gravimetric Method
So ₂	9.6	6.5	8.3	11.2	<80 (μg/m³)	IS-5182 (Part-2); 2018 / New West &Gaeke Method
No ₂	18.9	16.4	17.8	21.4	<80 (μg/m³)	IS-5182 (Part-6); 2017 / JACOB &Hochheiser Method
со	<1.0	<1.0	<1.0	<1.0	<2.0(mg/m³) (8 hrs)	IS-5182 (Part-10); 2019 GC Method

AUTHORISED SIGNATORY

1. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2161-DTH-2011, CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

2. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2461-DTA-2019, CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

3. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2463-DTA-2019, CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

4. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2464-DTA-2019, CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

1. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 16-I-623), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

2. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-F-731), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

3. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-750), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026

4. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-751), CALIBRATED ON 06-01-2025, DUE ON 05-01-2026



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ISO 9001, 14001 & 45001

TEST REPORT

ANNEXURE - 1

Date: 03-02-2025

REF.NO: LAWN/ZCL/STACK/001/2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Results			
S.No.	Parameters	Kiln + Raw Calciner + LIMITS Mill - 1 Raw Mill - 2	LIMITS	PROTOCOL	
1	Date of Sampling	27-01-2025	27-01-2025		
2	Stack diameter (m)	4.25	2.98	~-	
3	Stack cross sectional area (m²)	14.1790	6.971		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	29	31		
6	Flue gas temperature (°C)	102	98		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	9.80	17.50		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	3,88,682	3,45,431		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	17.1	18.7	<30	IS-11255 (Part-1); 2019
10	PM Load based standard Kg/ton of clinker	0.0348	0.0339	<0.125	CPCB Standard

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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SO 9001, 14001 & 450

TEST REPORT

REF.NO: LAWN/ZCL/STACK/002/2025

ANNEXURE - 1

Date: 03-02-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cooler	Coal Mill - I	LIMIT	PROTOCOL
1	Date of Sampling	27-01-2025	26-01-2025		
2	Stack diameter (m)	4.0	1.0		
3	Stack cross sectional area (m²)	12.56	0.785		
4	Pollution Control Equipment	ESP	Bag House – 1	Bag House	
5	Ambient temperature (C)	34	32		
6	Flue gas temperature (°C)	113	71		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	7.02	11.32		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	2,40,764	27,162		IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	19.6	19.3	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/003/2025

ANNEXURE - 1

Date: 03-02-2025

STACK MONITORING DATA

Name of the Industry &

Address

: M/s. ZUARI CEMENT LIMITED.,

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Coal Mill - I	Coal Mill - II	LIMIT	PROTOCOL
1	Date of Sampling	26-01-2025	26-01-2025		
2	Stack diameter (m)	1.32	1.50		
3	Stack cross sectional area (m²)	1.367	1.766		
4	Pollution Control Equipment	Bag House – 2	Bag House		
5	Ambient temperature (C)	33	30		
6	Flue gas temperature (°C)	75	76		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	13.10	9.54		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	5,42,411	50,644		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	20.4	22.1	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026

M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/008/2025

ANNEXURE - 1

Date: 03-02-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill- I Bag House	LIMIT	PROTOCOL
1	Date of Sampling		·-	
2	Time of Monitoring		7-	
3	Stack diameter (m)			
4	Stack cross sectional area (m²)			
5	Pollution Control Equipment			
6	Ambient temperature (C)	Shut down		
7	Flue gas temperature (°C)			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)			IS-11255 (Part-3); 2018
9	Flow rate (Nm ³ /hr)			IS-11255
10	Suspended particulate matter Concentration (mg/N m³)		<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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ISO 9001, 14001 & 450

TEST REPORT

REF.NO; LAWN/ZCL/STACK/004/2025

ANNEXURE - 1

Date: 03-02-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Res	ults	-	PROTOCOL	
S.No.	Parameters	Cement Mill - II	Cement Mill - III	LIMIT		
1	Date of Sampling	24-01-2025	24-01-2025			
2	Stack diameter (m)	1.12	1.12			
3	Stack cross sectional area (m²)	0.984	0.984			
4	Pollution Control Equipment	Bag House	Bag House		~	
5	Ambient temperature (C)	28	30			
6	Flue gas temperature (°C)	79	80		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	6.35	6.51		IS-11255 (Part-3); 2018	
8	Flow rate (Nm ³ /hr)	18,626	19,111		IS-11255	
9	Suspended particulate matter Concentration (mg/N m³)	19.6	20.6	<30	(Part-3); 2018 IS-11255 (Part-1); 2019	

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182 Email: lawnenviro@yahoo.co.in, info@lawnenviro.in, URL: www.lawnenviro.in



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SO 9001, 14001 & 4500: Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/007/2025

ANNEXURE - 1 Date: 03-02-2025

STACK MONITORING DATA

Name of the Industry &

Address

: M/s. ZUARI CEMENT LIMITED.,

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	1500 KVA D.G. Set	4x750 KVA D.G.Sets	LIMIT	PROTOCOL
1	Date of Sampling				
2	Time of Monitoring				
3	Stack diameter (m)				
4	Stack cross sectional area (m²)		Shut down		
5	Pollution Control Equipment				
6	Ambient temperature (C)				
7	Flue gas temperature (°C)	Shut down			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)				IS-11255
9	Flow rate (Nm ³ /hr)				(Part-3); 2018 IS-11255 (Part 3); 2018
10	Suspended particulate matter Concentration (mg/N m³)			<115	(Part-3); 2018 IS-11255 (Part-1); 2019
11	Sulphur Dioxide (SO ₂)				IS-11255
12	Oxides of Nitrogen (NO _x)				(Part-2); 2019 IS-11255 (Part-7); 2017

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SI. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026 M/s. LATA ENVIROTECH SERVICES..

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/005/2025

ANNEXURE - 1

Date: 03-02-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Resu	ılts			
S.No.	Parameters	Kiln + Raw Mill + Cooler	Coal Mill - III	LIMITS	PROTOCOL	
1	Date of Sampling	25-01-2025	25-01-2025			
2	Stack diameter (m)	11.67	2.10			
3	Stack cross sectional area (m²)	106.908	3.461			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	29	28			
6	Flue gas temperature (°C)	116	71		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	3.90	10.74		IS-11255 (Part-3); 2018	
8	Flow rate (Nm³/hr)	10,39,666	1,13,987		IS-11255 (Part-3); 2018	
9	Suspended particulate matter Concentration (mg/N m³)	18.8	15.4	<30	IS-11255 (Part-1); 2019	
10	PM Load based standard Kg/ton of clinker	0.0839		<0.125	CPCB Standard	

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SL No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026



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Certified Company

REF.NO: LAWN/ZCL/STACK/006/2025

ANNEXURE - 1 Date: 03-02-2025

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill - IV	Crusher-III	LIMIT	PROTOCOL
1	Date of Sampling	24-01-2025	25-01-2025		
2	Stack diameter (m)	3.80	1.20		
3	Stack cross sectional area (m²)	11.335	1.130		•••
4	Pollution Control Equipment	Bag House	Bag Filter		
5	Ambient temperature (C)	29	27		***
6	Flue gas temperature (°C)	92	39		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	8.87	12.36		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	2,90,504	47,125		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	18.0	25.4	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATOR

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 06-01-2025, Due On 05-01-2026

M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

ANNEXURE - 4

Date: 03-02-2025

REF.NO: LAWN/ZCL/WW/011/2025

WASTE WATER ANALYSIS

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Date of Collection

26-01-2025

Date of Analysis

27-01-2025

PROTOCOL

A.P.H.A. 24th Edition, 2017 & IS 3025

	-		STP	OUTLET
S.No	S.No. Parameters	PROTOCOL	STP Outlet Water	GSR 422E (Inland surface
1	Colour (Hazen Units)	IS:3025 (Part-4)	<5	water) See Note - 1
2	Odour	IS:3025 (Part-5)	Agreeable	See Note - 1
3	pH	IS:3025 (Part-11)	7.51	5.5 – 9.0
4	Oil & Grease, mg/l	IS:3025 (Part-39)	<1.0	10
5	Total Suspended Solids, mg/l	IS:3025 (Part-17)	11	100
6	Total Dissolved Solids at 105 °C, mg/l	IS:3025 (Part-16)	504	2,100
7	Bio Chemical Oxygen Demand for (3 days at 27°C), mg/l	IS:3025 (Part-44)	07	30
8	Chemical Oxygen Demand, mg/l	IS:3025 (Part-58)	13	250
9	Chlorides as Cl, mg/l	IS:3025 (Part-32)	120	1,000
10	Fluorides as F, mg/l	4500 F-D APHA 22 nd Edn 2012	0.43	2.0
11	Dissolved Phosphate as P, mg/l	IS:3025 (Part-31)	0.09	5.0
12	Percent Sodium	IS:2296-1982	7.38	***-
13	Sulphide as S, mg/l	IS:3025 (Part-29)	<1.0	2.0
14	Boron as B, mg/l	IS:3025 (Part-57)	0.05	2.0
15	Residual Sodium Carbonate, mg/l	IS:11624	Nil	2.0
_	Sulphates as SO ₄ , mg/l	IS:3025 (Part-24)	77	1,000
17	Iron as Fe, mg/l	IS:3025 (Part-53)	0.13	3.0
18	Total Volatile Suspended Solids, mg/l	IS:3025 (Part-18)	2.84	3.0

AUTHORISED SIGNATORY

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/NOISE/013/2025

ANNEXURE - 5 Date: 03-02-2025

NOISE LEVEL DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED..

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No	Locations	Equivalent Noise Levels in dB(A				
	Di (D	Day Time	Night Time			
1	Plant Boundary - East	60.7	55.4			
2	Plant Boundary - West	61.4	56.1			
3	Plant Boundary - North	64.3	59.5			
4	Plant Boundary - South	61.5	56.2			
5	Near Health Centre	57.2				
6	Near New Guest House		52.8			
0	Guest House	59.1	54.9			

- Note: 1. Noise levels are monitored on 25-01-2025.
 - 2. Instrument Make: Lutron SL-4001/G-49271, Calibrated On 21-02-2024, Due On 20-02-2025.
 - 3. Day time is reckoned in between 6.0 am and 10.0 pm Limit 75 dB (A).
 - 4. Night time is reckoned in between 10.0 pm and 6.0 am Limit 70 dB (A).

AUTHORISED SIGNATOR



CIN: U26942AP2000PLCO50415

District Kadapa,

Krishna Nagar, Yerraguntla,

Andhra Pradesh - 516311, Tel: +91 85632 75107 / 08 Fax: +91 85632 75101 / 64

www.zuaricements.com

ZCL/ YA/ EM /2025/Junos Date:22.01.2025

To The Member Secretary Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, APIIC Colony Road, Gurunanak Colony, Autonagar, Vijayawada- 520007

Dear Sir,

Please find enclosed the reports of Stack Emissions, Ambient Air Quality, Wastewater quality and Ambient Noise Quality data of Zuari Cement Plant –Yerraguntla for the month of Dec 2024.

Thanking you,

Yours faithfully For Zuari Cement Ltd

Head-Works

Encl: As above

CC:

The Environment Engineer, Andhra Pradesh Pollution Control Board, Regional Office, 1st Floor, D.No. 72/272-5-18, Kurnool-Chittoor NH 40 Road, Near Vinayaka Nagar Circle, Kadapa – 516003













Dec 2024

S.NO	ient Air Quality Location	Parameter	→ PM ₁₀	PM _{2,5}	S	02	NOX
	Location	T drumeter	µg/m3	μg/m3		-	μg/m3
		Limit	100	60	8	30	80
1.	Near Main Gate		59.1 51.7	25.6		.4	22.2
2.		Near Store		21.4		.7	15.2
3. 4.	Near Mines Office Near Pumphouse		54.2 47.8	23.4 19.5).5 .6	20.2 17.9
	<u> </u>		47.0	19.5	0	.0	17.9
	ck Emissions in Line-I		-1	10.0			
1.	Kiln+Rawmill-1 Baghous			12.9			
2.	Calciner +Rawmill-2 Bag	house		16.9			
3.	Cooler ESP			22.8			
4.	Coalmill-1Baghouse-1			17.0			
5.	Coalmill-1Baghouse-2			19.4		30mg/Nr	m^3
6.	Coal mill-2 Baghouse			20.4			
7.	Cement mill-1 Baghouse		Not in	operation			
8.	Cement mill-2 Baghouse			13.7			
9.	Cement mill-3 Baghouse		16.6				
10	DG Set 1500KV		Not in	operation	75m	g/Nm³	
11	DG Set 750 KV		Not in	operation	75m	g/Nm³	
Sta	ack Emissions in Line-I	I					
1.	Kiln+Rawmill+Cooler Ba	ghouse		20.4			
2.	Coal mill -3 Baghouse			14.4		20ma ar /Nia	3
3.	Cement Mill-4 Baghouse			22.5		- 30mg/Nm ³	
4.	Crusher-3 Bagfilter			25.6			
III.Wa	ater Analysis Reports		рН	BOD mg/Ltr	COD mg/Ltr	S.S mg/Ltr	Oil & Grease mg/Lt
Limitiı	ng Standards at Outlet		5.5 -9.0	100	250	100	10
1.	STP -Treated Effluent		7.69	08	14	13	<1.0
IV.Am	bient Noise levels		Day time	Night time	Day - Limit		
1.	Planrt Boundary -East		61.9	56.3			
2.	Planrt Boundary -West		63.4	58.9			
3.	Planrt Boundary -North		65.2	60.8			. In
4.	Planrt Boundary -South		62.6	57.1	75dB	70)dB
5.	Near Health Centre		58.5	53.6			
6.	Near New Guest house		56.8	51.7			

Note: Line-1 Cooler ESP trippings: NIL



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TEST REPORT

REF.NO: LAWN/ZCL/AAQ/009/2024

ANNEXURE - 2 Date: 28-12-2024

AMBIENT AIR QUALITY DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Code	A-1	A-2	A-3	A-4		
Date	19-12-2024 to 20-12-2024	19-12-2024 to 20-12-2024	19-12-2024 to 20-12-2024	19-12-2024 to 20-12-2024		
Starting Time	8.00 am	8.30 am	9.00 am	9.40 am	Standards (24 hourly	PROTOCOL/
Ending Time	8.00 am	8.30 am	9.00 am	9.40 am	standard)	TEST METHOD
Locations	Near Main Gate	Near Stores	Near Mines Office	Near Pump House		
PM ₁₀	59.1	51.7	54.2	47.8	<100 (μg/m³)	IS-5182 (Part-23); 2017 / Gravimetric Method
PM _{2.5}	25.6	21.4	23.4	19.5	<60 (μg/m³)	IS-5182 (Part-24); 2019 / Gravimetric Method
So ₂	11.4	5.7	10.5	8.6	<80 (μg/m³)	IS-5182 (Part-2); 2018 / New West &Gaeke Method
No ₂	22.2	15.2	20.2	17.9	<80 (μg/m³)	IS-5182 (Part-6); 2017 / JACOB &Hochheiser Method
со	<1.0	<1.0	<1.0	<1.0	<2.0(mg/m³) (8 hrs)	IS-5182 (Part-10); 2019 GC Method

AUTHORISED SIGNATORY

1. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2161-DTH-2011, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

2. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2461-DTA-2019, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

3. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2463-DTA-2019, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

 $4.\ RESPIRABLE\ DUST\ SAMPLER\ MODEL/SL. NO.RDS\ 2464-DTA-2019,\ CALIBRATED\ ON\ 30-12-2023,\ DUE\ ON\ 29-12-2024$

1. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 16-I-623), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

2. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-F-731), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

3. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-750), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

4. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-751), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182 Email: lawnenviro@yahoo.co.in, info@lawnenviro.in, URL: www.lawnenviro.in



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ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/001/2024

ANNEXURE - 1

Date: 28-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Res	sults		
S.No.	Parameters	Kiln + Raw Mill - 1	Calciner + LIMIT PR Raw Mill - 2		PROTOCOL
1	Date of Sampling	20-12-2024	20-12-2024		
2	Stack diameter (m)	4.25	2.98		
3	Stack cross sectional area (m²)	14.1790	6.971		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	32	32		
6	Flue gas temperature (°C)	102	101		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	10.69	20.24		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	4,26,035	3,94,820		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	12.9	16.9	<30	IS-11255 (Part-1); 2019
10	PM Load based standard Kg/ton of clinker	0.0273	0.0329	<0.125	CPCB Standard

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024

M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001

TEST REPORT

ANNEXURE - 1

Date: 28-12-2024

STACK MONITORING DATA

Name of the Industry &

REF.NO: LAWN/ZCL/STACK/002/2024

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cooler	Coal Mill - I	LIMIT	PROTOCOL
1	Date of Sampling	20-12-2024	20-12-2024	w w	
2	Stack diameter (m)	4.00	1.00		
3	Stack cross sectional area (m²)	12.56	0.785		
4	Pollution Control Equipment	ESP	Bag House - 1		
5	Ambient temperature (C)	31	32		
6	Flue gas temperature (°C)	108	73		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	9.45	13.94		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	3,27,874	33,367		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	22.8	17.0	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024

M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]

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TEST REPORT

ANNEXURE - 1 Date: 28-12-2024

REF.NO: LAWN/ZCL/STACK/003/2024

STACK MONITORING DATA

Name of the Industry &

Address

: M/s. ZUARI CEMENT LIMITED.,

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Coal Mill - I	Coal Mill - II	LIMIT	PROTOCOL
1	Date of Sampling	20-12-2024	20-12-2024		
2	Stack diameter (m)	1.32	1.50		
3	Stack cross sectional area (m²)	1.367	1.766		
4	Pollution Control Equipment	Bag House - 2	Bag House		
5	Ambient temperature (C)	29	30		
6	Flue gas temperature (°C)	74	72		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	12.56	10.97		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	52,120	59,172		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	19.4	20.4	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]





TEST REPORT

REF.NO: LAWN/ZCL/STACK/007/2024

ANNEXURE - 1 Date: 28-12-2024

STACK MONITORING DATA

Name of the Industry &

Address

: M/s. ZUARI CEMENT LIMITED.,

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	1500 KVA D.G. Set	4x750 KVA D.G.Sets	LIMIT	PROTOCOL
1	Date of Sampling				
2	Time of Monitoring				
3	Stack diameter (m)				
4	Stack cross sectional area (m²)				
5	Pollution Control Equipment				
6	Ambient temperature (C)				
7	Flue gas temperature (°C)	Shut down	Shut down		IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)				IS-11255 (Part-3); 2018
9	Flow rate (Nm³/hr)				IS-11255 (Part-3); 2018
10	Suspended particulate matter Concentration (mg/N m³)			<115	IS-11255 (Part-1); 2019
11	Sulphur Dioxide (SO ₂)				IS-11255 (Part-2); 2019
12	Oxides of Nitrogen (NO _x)				IS-11255 (Part-7); 2017

AUTHORISED SIGNATOR

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



[Environmental Engineers & Consultants in Pollution Control]

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Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/004/2024

ANNEXURE - 1 Date: 28-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED..

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Results			
S.No.	Parameters Cement Cement LI Mill - II Mill - III	LIMIT	PROTOCOL		
1	Date of Sampling	21-12-2024	22-12-2024		
2	Stack diameter (m)	1.12	1.12		
3	Stack cross sectional area (m²)	0.984	0.984		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	30	29		
6	Flue gas temperature (°C)	88	86		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	7.14	6.11		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	20,476	17,655		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	13.7	16.6	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/008/2024

ANNEXURE - 1 Date: 28-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill- I Bag House	LIMIT	PROTOCOL
1	Date of Sampling			
2	Time of Monitoring			
3	Stack diameter (m)			
4	Stack cross sectional area (m²)			•••
5	Pollution Control Equipment			
6	Ambient temperature (C)	Shut down		
7	Flue gas temperature (°C)			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)			IS-11255 (Part-3); 2018
9	Flow rate (Nm³/hr)			IS-11255 (Part-3); 2018
10	Suspended particulate matter Concentration (mg/N m³)		<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024



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ISO 9001, 14001 & 45001 Certified Company

REF.NO: LAWN/ZCL/STACK/005/2024

ANNEXURE - 1 Date: 28-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Resu	lts		
S.No.	Parameters	Kiln + Raw Mill + Cooler	Coal Mill - III		PROTOCOL
1	Date of Sampling	21-12-2024	21-12-2024		
2	Stack diameter (m)	11.67	2.10		
3	Stack cross sectional area (m²)	106.908	3.461		
4	Pollution Control Equipment	Bag House	Bag House		
5	Ambient temperature (C)	31	29		
6	Flue gas temperature (°C)	118	76		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	3.51	11.62		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	9,32,348	1,21,474		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	20.4	14.4	<30	IS-11255 (Part-1); 2019
10	PM Load based standard Kg/ton of clinker	0.0799		<0.125	CPCB Standard

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024



[Environmental Engineers & Consultants in Pollution Control]





TEST REPORT

REF.NO: LAWN/ZCL/STACK/006/2024

ANNEXURE - 1 Date: 28-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill - IV	Crusher-III	LIMIT	PROTOCOL
1	Date of Sampling	21-12-2024	20-12-2024		
2	Stack diameter (m)	3.80	1.20		
3	Stack cross sectional area (m²)	11.335	1.130		
4	Pollution Control Equipment	Bag House	Bag Filter		
5	Ambient temperature (C)	32	30		
6	Flue gas temperature (°C)	90	44		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	9.65	11.85		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	2,17,706	44,569		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	22.5	25.6	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

ANNEXURE - 4

Date: 28-12-2024

REF.NO: LAWN/ZCL/WW/011/2024

WASTE WATER ANALYSIS

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Date of Collection

21-12-2024

Date of Analysis

23-12-2024

PROTOCOL

A.P.H.A. 24th Edition, 2017 & IS 3025

			STP OUTLET		
S.No.	Parameters	PROTOCOL	STP Outlet Water	GSR 422E (Inland surface water)	
1	Colour (Hazen Units)	IS:3025 (Part-4)	<5	See Note - 1	
2	Odour	IS:3025 (Part-5)	Agreeable	See Note - 1	
3	рН	IS:3025 (Part-11)	7.69	5.5 - 9.0	
4	Oil & Grease, mg/l	IS:3025 (Part-39)	<1.0	10	
5	Total Suspended Solids, mg/l	IS:3025 (Part-17)	13	100	
6	Total Dissolved Solids at 105 °C, mg/l	IS:3025 (Part-16)	560	2,100	
7	Bio Chemical Oxygen Demand for (3 days at 27°C), mg/l	IS:3025 (Part-44)	08	30	
8	Chemical Oxygen Demand, mg/l	IS:3025 (Part-58)	14	250	
9	Chlorides as Cl, mg/l	IS:3025 (Part-32)	133	1,000	
10	Fluorides as F, mg/l	4500 F-D APHA 22 nd Edn 2012	0.49	2.0	
11	Dissolved Phosphate as P, mg/l	IS:3025 (Part-31)	0.10	5.0	
12	Percent Sodium	IS:2296-1982	8.21		
13	Sulphide as S, mg/l	IS:3025 (Part-29)	<1.0	2.0	
14	Boron as B, mg/l	IS:3025 (Part-57)	0.0	2.0	
15	Residual Sodium Carbonate, mg/1	IS:11624	Nil		
16	Sulphates as SO ₄ , mg/l	IS:3025 (Part-24)	85	1,000	
17	Iron as Fe, mg/l	IS:3025 (Part-53)	0.15	3.0	
18	Total Volatile Suspended Solids, mg/l	IS:3025 (Part-18)	3.16		

AUTHORISED SIGNATORY



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Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/NOISE/013/2024

ANNEXURE - 5 Date: 28-12-2024

NOISE LEVEL DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No	Locations	Equivalent Noise Levels in dB(
	200410115	Day Time	Night Time		
1	Plant Boundary - East	61.9	56.3		
2	Plant Boundary - West	63.4	58.9		
3	Plant Boundary - North	65.2	60.8		
4	Plant Boundary - South	62.6	57.1		
5	Near Health Centre	58.5	53.6		
6	Near New Guest House	56.8	51.7		

- Note: 1. Noise levels are monitored on 21-12-2024.
 - 2. Instrument Make: Lutron SL-4001/G-49271, Calibrated On 21-02-2024, Due On 20-02-2025.
 - 3. Day time is reckoned in between 6.0 am and 10.0 pm Limit 75 dB (A).
 - 4. Night time is reckoned in between 10.0 pm and 6.0 am Limit 70 dB (A).

AUTHORISED SIGNATORY



Zuari Cement Limited CIN: U26942AP2000PLC050415

Krishna Nagar, Yerraguntla,
District Kadapa,
Andhra Pradesh - 516311,
Tel: +91 85632 75107 / 08
Fax: +91 85632 75101 / 64

ax: +91 85632 75101 / 64 www.zuaricements.com

ZCL/ YA/ EM /2024/ Dec 03 Date:13.12.2024

To
The Member Secretary
Andhra Pradesh Pollution Control Board,
Paryavaran Bhavan,
APIIC Colony Road, Gurunanak Colony,
Autonagar, Vijayawada- 520007

Dear Sir,

Please find enclosed the reports of Stack Emissions, Ambient Air Quality, Wastewater quality and Ambient Noise Quality data of Zuari Cement Plant –Yerraguntla for the month of Nov 2024.

Thanking you,

Yours faithfully For Zuari Cement Ltd

GGK Murthy Head-Works

Encl: As above

CC:

The Environment Engineer,
Andhra Pradesh Pollution Control Board,
Regional Office, 1st Floor, D.No.72/272-5-18,
Kurnool-Chittoor NH 40 Road,
Near Vinayaka Nagar Circle, Kadapa – 516003



TO BUILD OUR FUTURE









Nov2024

I.Amb	ient Air Quality							
S.NO	Location	Parameter	PM ₁₀	PM _{2.5}		02	NOX	
		Linate	μg/m3	μg/m3			μg/m3	
- 1	Non-Main Cata	Limit	100	60		30	80	
1. 2.	Near Main Gate Near Store		55.4 48.2	22.5 18.7		0.5	20.3	
3.	Near Mines Office		59.3	20.8		1.8	22.9	
4.	Near Pumphouse		50.9	24.8		.7	18.1	
II.Sta	ck Emissions in Line-I							
1.	Kiln+Rawmill-1 Baghouse			11.3				
2.	Calciner +Rawmill-2 Baghou	se		13.8				
3.	Cooler ESP			22.1				
4.	Coalmill-1Baghouse-1			13.8				
5.	Coalmill-1Baghouse-2			18.3		30mg/Ni	m³	
6.	Coal mill-2 Baghouse			14.9		J .		
7.	Cement mill-1 Baghouse		Not in	operation				
8.	Cement mill-2 Baghouse			13.7				
9.	Cement mill-3 Baghouse			14.3				
10.	DG Set 1500KV		Not in operation		75m	75mg/Nm ³		
11. DG Set 750 KV			Not in operation		75m	75mg/Nm ³		
Sta	ack Emissions in Line-II	1						
1.	Kiln+Rawmill+Cooler Bagho	use		19.9				
2.	Coal mill -3 Baghouse			14.8			2	
3.	Cement Mill-4 Baghouse			17.7		30mg/Nm ³		
4.	Crusher-3 Bagfilter			27.5				
				BOD	COD	S.S	Oil &	
III.Wa	ater Analysis Reports		рН	mg/Ltr	mg/Ltr	mg/Ltr	Greas mg/Lt	
Limitir	ng Standards at Outlet		5.5 -9.0	100	250	100	10	
1.	STP -Treated Effluent		7.40	07	13	12	<1.0	
IV.Ambient Noise levels		Day time	Night time	Day - Limit	. MODE =			
1.	Planrt Boundary -East		63.1	58.2				
2.	Planrt Boundary -West		64.9	59.6				
3.	Planrt Boundary –North		66.4	61.7				
4.	Planrt Boundary -South		60.8	55.9	75dB	70	dB	
5.	Near Health Centre		62.5	57.1				
6.	Near New Guest house		54.3	49.8				

Note: Line-1 Cooler ESP trippings: NIL



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TEST REPORT



ISO 9001, 14001 & 45001 Certified Company

REF.NO: LAWN/ZCL/AAQ/009/2024

ANNEXURE - 2Date: 03-12-2024

AMBIENT AIR QUALITY DATA

Name of the Industry & Address

: M/s. ZUARI CEMENT LIMITED.,

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Code	A-1	A-2	A-3	A-4.		
Date	23-11-2024 to 24-11-2024	23-11-2024 to 24-11-2024	23-11-2024 to 24-11-2024	23-11-2024 to 24-11-2024		
Starting Time	8.15 am	8.40 am	9.10 am	9.30 am	Standards (24 hourly	PROTOCOL/
Ending Time	8.15 am	8.40 am	9.10 am	9.30 am	standard)	TEST METHOD
Locations	Near Main Gate	Near Stores	Near Mines Office	Near Pump House		
PM ₁₀	55.4	48.2	59.3	50.9	<100 (μg/m³)	IS-5182 (Part-23); 2017 / Gravimetric Method
PM _{2.5}	22.5	18.7	20.8	24.8	<60 (μg/m³)	IS-5182 (Part-24); 2019 / Gravimetric Method
So ₂	10.5	7.2	11.8	9.7	<80 (μg/m³)	IS-5182 (Part-2); 2018 / New West &Gaeke Method
No ₂	20.3	16.5	22.9	18.1	<80 (μg/m³)	IS-5182 (Part-6); 2017 / JACOB &Hochheiser Method
со	<1.0	<1.0	<1.0	<1.0	<2.0(mg/m³) (8 hrs)	IS-5182 (Part-10); 2019 GC Method

AUTHORISED SIGNATORY

^{1.} RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2161-DTH-2011, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

^{2.} RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2461-DTA-2019, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

^{3.} RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2463-DTA-2019, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

^{4.} RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2464-DTA-2019, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

^{1.} FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 16-I-623), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

^{2.} FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-F-731), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

^{3.} FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-750), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

^{4.} FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-751), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024



[Environmental Engineers & Consultants in Pollution Control]

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ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/001/2024

ANNEXURE - 1 Date: 03-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Res	sults		PROTOCOL	
S.No.	Parameters	Kiln + Raw Mill - 1	Calciner + Raw Mill - 2	LIMIT		
1	Date of Sampling	24-11-2024	24-11-2024			
2	Stack diameter (m)	4.25	2.98			
3	Stack cross sectional area (m²)	14.1790	6.971			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	31	30			
6	Flue gas temperature (°C)	104	98		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	10.95	19.80		IS-11255 (Part-3); 2018	
8	Flow rate (Nm ³ /hr)	4,31,919	3,89,833		IS-11255 (Part-3); 2018	
9	Suspended particulate matter Concentration (mg/N m³)	11.3	13.8	<30	IS-11255 (Part-1); 2019	
10	PM Load based standard Kg/ton of clinker	0.0241	0.0267	<0.125	CPCB Standard	

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/SL No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926

Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001 14001 & 4500

TEST REPORT

REF.NO: LAWN/ZCL/STACK/002/2024

ANNEXURE - 1 Date: 03-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cooler	Coal Mill - I	LIMIT	PROTOCOL
1	Date of Sampling	25-11-2024	25-11-2024		
2	Stack diameter (m)	4.00	1.00		
3	Stack cross sectional area (m²)	12.56	0.785		
4	Pollution Control Equipment	ESP	Bag House - 1		
5	Ambient temperature (C)	32	30		
6	Flue gas temperature (°C)	138	68		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	7.74	15.60		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	2,48,492	37,776		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	22.1	13.8	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/003/2024

ANNEXURE - 1 Date: 03-12-2024

STACK MONITORING DATA

Name of the Industry &

Address

: M/s. ZUARI CEMENT LIMITED.,

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Coal Mill - I	Coal Mill - II	LIMIT	PROTOCOL
1	Date of Sampling	25-11-2024	25-11-2024		
2	Stack diameter (m)	1.32	1.50		
3	Stack cross sectional area (m²)	1.367	1.766		
4	Pollution Control Equipment	Bag House - 2	Bag House		
5	Ambient temperature (C)	30	31		
6	Flue gas temperature (°C)	78	76		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	11.81	10.38		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	48,407	55,232		IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	18.3	14.9	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/008/2024

ANNEXURE - 1 Date: 03-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill- I Bag House	LIMIT	PROTOCOL
1	Date of Sampling			
2	Time of Monitoring			
3	Stack diameter (m)			
4	Stack cross sectional area (m²)			
5	Pollution Control Equipment			
6	Ambient temperature (C)	Shut down		***
7	Flue gas temperature (°C)			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)			IS-11255 (Part-3); 2018
9	Flow rate (Nm³/hr)			IS-11255 (Part-3); 2018
10	Suspended particulate matter Concentration (mg/N m³)		<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



[Environmental Engineers & Consultants in Pollution Control]

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ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/004/2024

ANNEXURE - 1

Date: 03-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

	l.	Res	ults			
S.No.	Parameters	Cement Mill - II	Cement Mill - III	LIMIT	PROTOCOL	
1	Date of Sampling	25-11-2024	25-11-2024			
2	Stack diameter (m)	1.12	1.12	~-		
3	Stack cross sectional area (m²)	0.984	0.984			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	31	32			
6	Flue gas temperature (°C)	83	78		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	7.65	7.02		IS-11255 (Part-3); 2018	
8	Flow rate (Nm ³ /hr)	22,233	20,718		IS-11255	
9	Suspended particulate matter Concentration (mg/N m³)	13.7	14.3	<30	(Part-3); 2018 IS-11255 (Part-1); 2019	

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]

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TEST REPORT

REF.NO: LAWN/ZCL/STACK/007/2024

ANNEXURE - 1 Date: 03-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	1500 KVA D.G. Set	4x750 KVA D.G.Sets	LIMIT	PROTOCOL
1	Date of Sampling				
2	Time of Monitoring				
3	Stack diameter (m)				
4	Stack cross sectional area (m²)	Shut down			
5	Pollution Control Equipment				
6	Ambient temperature (C)				
7	Flue gas temperature (°C)		Shut down		IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)				IS-11255
9	Flow rate (Nm³/hr)				(Part-3); 2018 IS-11255 (Part 3); 2018
10	Suspended particulate matter Concentration (mg/N m³)			<115	(Part-3); 2018 IS-11255 (Part-1); 2019
11	Sulphur Dioxide (SO ₂)				IS-11255
12	Oxides of Nitrogen (NO _x)				(Part-2); 2019 IS-11255 (Part-7); 2017

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024



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TEST REPORT

REF.NO: LAWN/ZCL/STACK/005/2024

ANNEXURE - 1 Date: 03-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Results				
S.No.	Parameters	Kiln + Raw Mill + Cooler	Coal Mill - III	LIMIT	PROTOCOL	
1	Date of Sampling	24-11-2024	25-11-2024			
2	Stack diameter (m)	11.67	2.10			
3	Stack cross sectional area (m²)	106.908	3.461			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	30	31			
6	Flue gas temperature (°C)	110	74		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	3.29	10.94		IS-11255 (Part-3); 2018	
8	Flow rate (Nm³/hr)	8,88,463	1,14,818		IS-11255 (Part-3); 2018	
9	Suspended particulate matter Concentration (mg/N m³)	19.9	14.8	<30	IS-11255 (Part-1); 2019	
10	PM Load based standard Kg/ton of clinker	0.0739		<0.125	CPCB Standard	

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]

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TEST REPORT

REF.NO: LAWN/ZCL/STACK/006/2024

ANNEXURE - 1Date: 03-12-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill - IV	Crusher-III	LIMIT	PROTOCOL
1	Date of Sampling	25-11-2024	25-11-2024		
2	Stack diameter (m)	3.80	1.20		
3	Stack cross sectional area (m²)	11.335	1.130		
4	Pollution Control Equipment	Bag House	Bag Filter		
5	Ambient temperature (C)	30	31		7==
6	Flue gas temperature (°C)	86	45		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	9.28	12.74		IS-11255 (Part-3); 2018
8	Flow rate (Nm ³ /hr)	3,07,882	47,686		IS-11255
9	Suspended particulate matter Concentration (mg/N m³)	17.7	27.5	<30	(Part-3); 2018 IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

REF.NO: LAWN/ZCL/WW/011/2024

ANNEXURE - 4

Date: 03-12-2024

WASTE WATER ANALYSIS

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Date of Collection

25-11-2024

Date of Analysis : PROTOCOL :

26-11-2024 A.P.H.A. 24th Edition, 2017 & IS 3025

	Parameters		STP OUTLET		
S.No.		PROTOCOL	STP Outlet Water	GSR 422E (Inland surface water)	
1	Colour (Hazen Units)	IS:3025 (Part-4)	<5	See Note - 1	
2	Odour	IS:3025 (Part-5)	Agreeable	See Note - 1	
3	рН	IS:3025 (Part-11)	7.40	5.5 – 9.0	
4	Oil & Grease, mg/l	IS:3025 (Part-39)	<1.0	10	
5	Total Suspended Solids, mg/l	IS:3025 (Part-17)	12	100	
6	Total Dissolved Solids at 105 °C, mg/l	IS:3025 (Part-16)	509	2,100	
7	Bio Chemical Oxygen Demand for (3 days at 27°C), mg/1	IS:3025 (Part-44)	07	30	
8	Chemical Oxygen Demand, mg/l	IS:3025 (Part-58)	13	250	
9	Chlorides as Cl, mg/l	IS:3025 (Part-32)	121	1,000	
10	Fluorides as F, mg/l	4500 F-D APHA 22 nd Edn 2012	0.40	2.0	
11	Dissolved Phosphate as P, mg/l	IS:3025 (Part-31)	0.09	5.0	
12	Percent Sodium	IS:2296-1982	7.47		
13	Sulphide as S, mg/l	IS:3025 (Part-29)	<1.0	2.0	
14	Boron as B, mg/l	IS:3025 (Part-57)	0.06	2.0	
15	Residual Sodium Carbonate, mg/l	IS:11624	Nil		
16	Sulphates as SO ₄ , mg/l	IS:3025 (Part-24)	77	1,000	
17	Iron as Fe, mg/l	IS:3025 (Part-53)	0.18	3.0	
18	Total Volatile Suspended Solids, mg/l	IS:3025 (Part-18)	2.88		

AUTHORISED SIGNATORY

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



[Environmental Engineers & Consultants in Pollution Control]

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TEST REPORT

REF.NO: LAWN/ZCL/NOISE/013/2024

ANNEXURE - 5

Date: 03-12-2024

NOISE LEVEL DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No	Locations	Equivalent Noise Levels in dB				
		Day Time	Night Time			
1	Plant Boundary - East	63.1	58.2			
2	Plant Boundary - West	64.9	59.6			
3	Plant Boundary - North	66.4	61.7			
4	Plant Boundary - South	60.8	55.9			
5	Near Health Centre	62.5	57.1			
6	Near New Guest House	54.3	49.8			

- Note: 1. Noise levels are monitored on 25-11-2024.
 - 2. Instrument Make: Lutron SL-4001/G-49271, Calibrated On 21-02-2024, Due On 20-02-2025.
 - 3. Day time is reckoned in between 6.0 am and 10.0 pm Limit 75 dB (A).
 - 4. Night time is reckoned in between 10.0 pm and 6.0 am Limit 70 dB (A).

AUTHORISED SIGNATORY

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182 Email: lawnenviro@yahoo.co.in, info@lawnenviro.in, URL: www.lawnenviro.in



Zuari Cement Limited

CIN: U26942AP2000PLC050415 Krishna Nagar, Yerraguntla, District Kadapa, Andhra Pradesh - 516311, Tel: +91 85632 75107 / 08 Fax: +91 85632 75101 / 64 www.zuaricements.com

ZCL/ YA/ EM /2024/ Nob 09
Date:19.11.2024

To
The Member Secretary
Andhra Pradesh Pollution Control Board,
Paryavaran Bhavan,
APIIC Colony Road, Gurunanak Colony,
Autonagar, Vijayawada- 520007

Dear Sir,

Please find enclosed the reports of Stack Emissions, Ambient Air Quality, Wastewater quality and Ambient Noise Quality data of Zuari Cement Plant –Yerraguntla for the month of Oct 2024.

Thanking you,

Yours faithfully For Zuari Cement Ltd

GGK Murthy Head-Works

Encl: As above

cc:

The Environment Engineer, Andhra Pradesh Pollution Control Board, Regional Office, 1st Floor, D.No. 72/272-5-18, Kurnool-Chittoor NH 40 Road, Near Vinayaka Nagar Circle, Kadapa – 516003











Oct 20 I.Amb	ient Air Quality							
S.NO	Location	Parameter—	→ PM ₁₀	PM _{2.5}	SC)2	NOX	
			μg/m3	μg/m3			µg/m3	
		Limit	100	60	8	0	80	
1.	Near Main Gate		52.1	19.8	9.		19.2	
2.	Near Store		43.6	16.5	6.		17.3	
3. 4.	Near Mines Office Near Pumphouse		57.9	23.4	12		24.1	
	<u>'</u>		54.8	21.7	10	.4	20.5	
	ck Emissions in Line-I							
1.	Kiln+Rawmill-1 Baghous	e		14.4				
2.	Calciner +Rawmill-2 Bag	house	=======================================	19.2				
3.	Cooler ESP			20.8				
4.	Coalmill-1Baghouse-1			12.9				
5.	Coalmill-1Baghouse-2			20.7		30mg/Ni	n ³	
6.	Coal mill-2 Baghouse			17.1		<u>.</u>		
7.	Cement mill-1 Baghouse		Not in	operation				
8.	Cement mill-2 Baghouse			13.1				
9.	Cement mill-3 Baghouse		15.5					
10.	DG Set 1500KV		Not in operation		75mg	75mg/Nm ³		
11.	DG Set 750 KV) KV Not in operation		operation	75mg	75mg/Nm ³		
Sta	ack Emissions in Line-I	I						
1.	Kiln+Rawmill+Cooler Ba	ghouse		13.8				
2.	Coal mill -3 Baghouse			11.9			-	
3.	Cement Mill-4 Baghouse			15.1		30mg/Nr	Nm ³	
4.	Crusher-3 Bagfilter			28.0				
				BOD	COD	S.S	Oil &	
III.Wa	ater Analysis Reports		pH	mg/Ltr	mg/Ltr	mg/Ltr	Grease mg/Lt	
Limitir	ng Standards at Outlet		5.5 -9.0	100	250	100	10	
1.	STP -Treated Effluent		7.61	08	15	13	<1.0	
IV.Am	bient Noise levels		Day time	Night time	Day - Limit	Night	-Limit	
1.	Planrt Boundary -East		61.5	56.9				
2.	Planrt Boundary -West		63.2	58.4				
3.	Planrt Boundary -North		65.6	60.2		1		
4.	Planrt Boundary -South		62.8	57.3	75dB	70	dB	
5.	Near Health Centre		59.4	54.8				
6.	Near New Guest house		56.6	51.7				

Note: Line-1 Cooler ESP trippings: NIL



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TEST REPORT

REF.NO: LAWN/ZCL/AAQ/009/2024

ANNEXURE - 2 Date: 04-11-2024

AMBIENT AIR QUALITY DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED..

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Code	A-1	A-2	A-3	A-4		
Date	25-10-2024 to 26-10-2024	25-10-2024 to 26-10-2024	25-10-2024 to 26-10-2024	25-10-2024 to 26-10-2024		
Starting Time	8.00 am	8.30 am	9.00 am	9.35 am	Standards (24 hourly	PROTOCOL/ TEST METHOD
Ending Time	8.00 am	8.30 am	9.00 am	9.35 am	standard)	IESI METHOD
Locations	Near Main Gate	Near Stores	Near Mines Office	Near Pump House		
PM ₁₀	52.1	43.6	57.9	54.8	<100 (μg/m³)	IS-5182 (Part-23); 2017 / Gravimetric Method
PM _{2.5}	19.8	16.5	23.4	21.7	<60 (μg/m³)	IS-5182 (Part-24); 2019 / Gravimetric Method
So ₂	9.4	6.9	12.3	10.4	<80 (μg/m³)	IS-5182 (Part-2); 2018 / New West &Gaeke Method
No ₂	19.2	17.3	24.1	20.5	<80 (μg/m³)	IS-5182 (Part-6); 2017 / JACOB &Hochheiser Method
со	<1.0	<1.0	<1.0	<1.0	<2.0(mg/m³) (8 hrs)	IS-5182 (Part-10); 2019 GC Method

AUTHORISED SIGNATORY

1. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2161-DTH-2011, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

 $2.\ RESPIRABLE\ DUST\ SAMPLER\ MODEL/SL. NO.RDS\ 2461-DTA-2019,\ CALIBRATED\ ON\ 30-12-2023,\ DUE\ ON\ 29-12-2024$

3. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2463-DTA-2019, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

4. RESPIRABLE DUST SAMPLER MODEL/SL.NO.RDS 2464-DTA-2019, CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

1. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 16-I-623), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

2. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-F-731), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

3. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-750), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024

4. FINE PARTICULATE SAMPLER / AAS 127 MINI; (SL.NO. 17-J-751), CALIBRATED ON 30-12-2023, DUE ON 29-12-2024



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/001/2024

ANNEXURE - 1

Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Re	sults			
S.No.	Parameters	Kiln + Raw Mill - 1	Calciner + Raw Mill - 2	LIMIT	PROTOCOL	
1	Date of Sampling	25-10-2024	25-10-2024			
2	Stack diameter (m)	4.25	2.98			
3	Stack cross sectional area (m²)	14.1790	6.971			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	33	34			
6	Flue gas temperature (°C)	96	102		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	10.90	18.37		IS-11255 (Part-3); 2018	
8	Flow rate (Nm³/hr)	4,38,713	3,59,218		IS-11255 (Part-3); 2018	
9	Suspended particulate matter Concentration (mg/N m³)	14.4	19.2	<30	IS-11255 (Part-1); 2019	
10	PM Load based standard Kg/ton of clinker	0.0305	0.0333	<0.125	CPCB Standard	

AUTHORISED STONATORY

STACK MONITORING KIT:



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/002/2024

ANNEXURE - 1

Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cooler	Coal Mill - I	LIMIT	PROTOCOL
1	Date of Sampling	25-10-2024	25-10-2024		
2	Stack diameter (m)	4.00	1.00		
3	Stack cross sectional area (m²)	12.56	0.785		
4	Pollution Control Equipment	ESP	Bag House - 1		
5	Ambient temperature (C)	34	32		
6	Flue gas temperature (°C)	120	72		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	7.09	11.46		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	2,38,769	27,455		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	20.8	12.9	<30	IS-11255 (Part-1); 2019

AUTHORISED STONATORY

STACK MONITORING KIT:



[Environmental Engineers & Consultants in Pollution Control]





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TEST REPORT

REF.NO: LAWN/ZCL/STACK/003/2024

ANNEXURE - 1Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Coal Mill - I	Coal Mill - II	LIMIT	PROTOCOL
1	Date of Sampling	25-10-2024	26-10-2024		
2	Stack diameter (m)	1.32	1.50		
3	Stack cross sectional area (m²)	1.367	1.766		
4	Pollution Control Equipment	Bag House - 2	Bag House		
5	Ambient temperature (C)	32	30		
6	Flue gas temperature (°C)	75	73		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	12.96	9.74		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	53,654	52,280		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	20.7	17.1	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:



[Environmental Engineers & Consultants in Pollution Control]





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TEST REPORT

REF.NO: LAWN/ZCL/STACK/008/2024

ANNEXURE - 1Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill- I Bag House	LIMIT	PROTOCOL
1	Date of Sampling			
2	Time of Monitoring			
3	Stack diameter (m)			
4	Stack cross sectional area (m²)			
5	Pollution Control Equipment			
6	Ambient temperature (C)	Shut down		
7	Flue gas temperature (°C)			IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)			IS-11255 (Part-3); 2018
9	Flow rate (Nm³/hr)			IS-11255 (Part-3); 2018
10	Suspended particulate matter Concentration (mg/N m³)		<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024 M/s. LATA ENVIROTECH SERVICES.,

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926

Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/004/2024

ANNEXURE - 1 Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Res	ults			
S.No.	Parameters	Cement Mill - II	Cement Mill - III	LIMIT	PROTOCOL	
1	Date of Sampling	25-10-2024	25-10-2024			
2	Stack diameter (m)	1.12	1.12			
3	Stack cross sectional area (m²)	0.984	0.984			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	33	35		~	
6	Flue gas temperature (°C)	80	82		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	7.13	6.55		IS-11255 (Part-3); 2018	
8	Flow rate (Nm³/hr)	20,925	19,142		IS-11255 (Part-3); 2018	
9	Suspended particulate matter Concentration (mg/N m³)	13.1	15.5	<30	IS-11255 (Part-1); 2019	

AUTHORISED SIGNATORY

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024

M/s. LATA ENVIROTECH SERVICES...



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001

TEST REPORT

REF.NO: LAWN/ZCL/STACK/007/2024

ANNEXURE - 1 Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist).

Andhra Pradesh - 516 311.

S.No.	Parameters	1500 KVA D.G. Set	4x750 KVA D.G.Sets	LIMIT	PROTOCOL
1	Date of Sampling				
2	Time of Monitoring				
3	Stack diameter (m)				
4	Stack cross sectional area (m²)				
5	Pollution Control Equipment				
6	Ambient temperature (C)				
7	Flue gas temperature (°C)	Shut down	Shut down		IS-11255 (Part-3); 2018
8	Exit velocity of flue gases (m/sec)				IS-11255 (Part-3); 2018
9	Flow rate (Nm³/hr)				IS-11255 (Part-3); 2018
10	Suspended particulate matter Concentration (mg/N m³)			<115	IS-11255 (Part-1); 2019
11	Sulphur Dioxide (SO ₂)				IS-11255 (Part-2); 2019
12	Oxides of Nitrogen (NO _x)				IS-11255 (Part-7); 2017

AUTHORISED SIGN

STACK MONITORING KIT:

MODEL NO: APM-160/Sl. No. 138-DTK-2020, Calibrated On 30-12-2023, Due On 29-12-2024

M/s. LATA ENVIROTECH SERVICES.,



[Environmental Engineers & Consultants in Pollution Control]

Recognised by MOEF&CC/CPCB under EP Act, GOI, New Delhi & Laboratory Accredited by NABL



ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/STACK/005/2024

ANNEXURE - 1 Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

		Resu	ilts			
S.No.	Parameters	Kiln + Raw Mill + Cooler	Coal Mill - III	LIMIT	PROTOCOL	
1	Date of Sampling	26-10-2024	26-10-2024			
2	Stack diameter (m)	11.67	2.10			
3	Stack cross sectional area (m²)	106.908	3.461			
4	Pollution Control Equipment	Bag House	Bag House			
5	Ambient temperature (C)	33	34			
6	Flue gas temperature (°C)	118	76		IS-11255 (Part-3); 2018	
7	Exit velocity of flue gases (m/sec)	3.49	11.48		IS-11255 (Part-3); 2018	
8	Flow rate (Nm ³ /hr)	9,24,058	1,19,970		IS-11255 (Part-3); 2018	
9	Suspended particulate matter Concentration (mg/N m³)	13.8	11.9	<30	IS-11255 (Part-1); 2019	
10	PM Load based standard Kg/ton of clinker	0.0544		<0.125	CPCB Standard	

STACK MONITORING KIT:



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001

TEST REPORT

REF.NO: LAWN/ZCL/STACK/006/2024

ANNEXURE - 1 Date: 04-11-2024

STACK MONITORING DATA

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No.	Parameters	Cement Mill - IV	Crusher-III	LIMIT	PROTOCOL
1	Date of Sampling	26-10-2024	26-10-2024		
2	Stack diameter (m)	3.80	1.20		
3	Stack cross sectional area (m²)	11.335	1.130		
4	Pollution Control Equipment	Bag House	Bag Filter		
5	Ambient temperature (C)	33.	35		
6	Flue gas temperature (°C)	89	43		IS-11255 (Part-3); 2018
7	Exit velocity of flue gases (m/sec)	8.34	11.89		IS-11255 (Part-3); 2018
8	Flow rate (Nm³/hr)	2,75,335	44,711		IS-11255 (Part-3); 2018
9	Suspended particulate matter Concentration (mg/N m³)	15.1	28.0	<30	IS-11255 (Part-1); 2019

AUTHORISED SIGNATORY

STACK MONITORING KIT:



[Environmental Engineers & Consultants in Pollution Control]





ISO 9001, 14001 & 45001 Certified Company

TEST REPORT

REF.NO: LAWN/ZCL/WW/011/2024

ANNEXURE - 4 Date: 04-11-2024

WASTE WATER ANALYSIS

Name of the Industry &

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

Date of Collection

26-10-2024

Date of Analysis :

28-10-2024

PROTOCOL

A.P.H.A. 24th Edition, 2017 & IS 3025

			STP OUTLET	
S.No.		PROTOCOL	STP Outlet Water	GSR 422E (Inland surface water)
1	Colour (Hazen Units)	IS:3025 (Part-4)	<5	See Note - 1
2	Odour	IS:3025 (Part-5)	Agreeable	See Note - 1
3	рН	IS:3025 (Part-11)	7.61	5.5 – 9.0
4	Oil & Grease, mg/l	IS:3025 (Part-39)	<1.0	10
5	Total Suspended Solids, mg/l	IS:3025 (Part-17)	13	100
6	Total Dissolved Solids at 105 °C, mg/l	IS:3025 (Part-16)	566	2,100
7	Bio Chemical Oxygen Demand for (3 days at 27°C), mg/l	IS:3025 (Part-44)	08	30
8	Chemical Oxygen Demand, mg/l	IS:3025 (Part-58)	15	250
9	Chlorides as Cl, mg/l	IS:3025 (Part-32)	134	1,000
10	Fluorides as F, mg/l	4500 F-D APHA 22 nd Edn 2012	0.36	2.0
11	Dissolved Phosphate as P, mg/l	IS:3025 (Part-31)	0.10	5.0
12	Percent Sodium	IS:2296-1982	8.31	
13	Sulphide as S, mg/l	IS:3025 (Part-29)	<1.0	2.0
14	Boron as B, mg/l	IS:3025 (Part-57)	0.04	2.0
15	Residual Sodium Carbonate, mg/l	IS:11624	Nil	
16	Sulphates as SO ₄ , mg/l	IS:3025 (Part-24)	85	1,000
17	Iron as Fe, mg/l	IS:3025 (Part-53)	0.12	3.0
18	Total Volatile Suspended Solids, mg/l	IS:3025 (Part-18)	3.20	

AUTHORISED SIGNATOR

Corporate Office: "LAWN HOUSE", #184-C, Vengalrao Nagar, Hyderabad-500038. (T.S.) INDIA. Phone: 66730925, 66730926, Fax: 040-66730926 Branch Office: D.No.31-58-103, MIG-71, Phase-7, Road No.4/4, Dwarakapuri Colony, Kurmanapallem, Vishakhapatnam-530046.Tel: 9701505182



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TEST REPORT

ANNEXURE - 5

Date: 04-11-2024

NOISE LEVEL DATA

Name of the Industry &

REF.NO: LAWN/ZCL/NOISE/013/2024

: M/s. ZUARI CEMENT LIMITED.,

Address

: Krishna Nagar P.O, Yerraguntla, YSR Kadapa (Dist),

Andhra Pradesh - 516 311.

S.No	Locations	Equivalent Noise Levels in dB(A)		
		Day Time	Night Time	
1	Plant Boundary - East	61.5	56.9	
2	Plant Boundary - West	63.2	58.4	
3	Plant Boundary - North	65.6	60.2	
4	Plant Boundary - South	62.8	57.3	
5	Near Health Centre	59.4	54.8	
6	Near New Guest House	56.6	51.7	

- Note: 1. Noise levels are monitored on 26-10-2024.
 - 2. Instrument Make: Lutron SL-4001/G-49271, Calibrated On 21-02-2024, Due On 20-02-2025.
 - 3. Day time is reckoned in between 6.0 am and 10.0 pm Limit 75 dB (A).
 - 4. Night time is reckoned in between 10.0 pm and 6.0 am Limit 70 dB (A).

AUTHORISED SIGNATORY

CORPORATE RESPONSIBILITY FOR ENVIRONMENTAL PROTECTION (CREP)

Zuari Cement Ltd -Yerraguntla

S.NO	Point	Compliance STatus
1.	Cement plants which are not complying with notified standards shall do the following to meet the standards. Augmentation of existing Air pollution control devices- by July 2003. Replacement of existing air pollution control devices- by July 2004. (* Non complying units shall give bank guarantee to respective SPCBs)	Not applicable to our industry as we are complying the standards.
2.	Cement plants located in critically polluted or urban areas (including 5 km distance outside urban boundary) will meet 100 mg/Nm3 limit of particulate matter by December, 2004 and continue working to reduce the emission of particulate matter to 50 mg/Nm3.	we are not exceeding the limit prescribed by CPCB /APPCB
3.	The new cement kilns to be accorded NOC/Environmental clearance w. e. f. 01.04.2003 will meet the limit of 50 mg/Nm3 for particulate matter emissions.	Our Line-I&II are meeting the standards.
4.	CPCB will evolve load based standards by Dec. 2003.	Our Line-I&II are meeting the standards.
5.	CPCB & NCBM will evolve SO2 and NOx emission standards by June 2004.	We are are meeting the standards and installed online emission monitoring system at Line-I & II for PM, SO2 & NOx measurement. Also installed SNCR system for NOX emission control
6.	The Cement industries will Control fugitive emissions from all the raw material and products storage and transfer points by Dec. 2003. However, the feasibility for the control of fugitive emissions from limestone and coal storage areas will be decided by the National Task Force (NTF). The NTF shall submit its recommendations within three months.	To control the fugitive emissions we have provided closed sheds for raw material storage and regular Waster spraying on belts also all our internal roads are concreted.
7.	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003.	Presently we are using coal,petcoke RDF,carbonblack ,biomass and pharma wastes in kiln.
8.	After performance evaluation of various types of continuous monitoring equipment and feed back from industries and equipment manufacturer's, NTF will decide feasible unit-operations / sections for installation of continuous monitoring equipment. The	We have installed 10 numbers of continuous monitoring equipment at all major stacks.Data is connected to APPCB and CPCB, website.

	industry will install the continuous monitoring systems (CMS) by December 2003.	
9.	Tripping in kiln ESP to be minimized by July 2003 as per the recommendation of NTF.	We have replaced ESP's by Baghouse in Line-1 Kiln, calciner, Cement mill-2&3 and there is no trappings found in Baghouse.
10.	Industries will submit the target date to enhance the utilization of waste material by April 2003.	We are using maximum fly ash to produce PPC cement. 2024-25: Wet flyash - 284084 Dry Flyash - 101505
11.	NCBM will carry out feasibility study on hazardous waste utilization in cement kiln by December 2003.	Present we are using RDF, Tyre chips, biomass and Pharma waste as alternative fuel.
12.	Cement industry will carry out feasibility study and submit target dates to CPCB for Co-generation of power by July 2003.	WHRPP installed with capacity of 21 MW.