

Ref.: ACIL/DCGU/Environment/EC-Comp/SEIAA/04

Date: 25.11.2024

To,
The secretary
State Environment Impact Assessment Authority, Gujarat
Gujarat Pollution Control Board
Paryavaran Bhavan, Sector-10A, Gandhinagar
Gujarat - 382010

Sub: Six monthly compliance status report of Environment Clearance of stand-alone Cement Grinding unit of Adani Cement Industries Limited at Dahej Industrial Estate Taluka Vagra, District Bharuch (Gujarat)

Ref:

- 1. EC Letter No. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03.05.2019 to ACL Enclosure 2
- 2. Transfer of EC to ACIL Letter No. SEIAA/GUI/EC/3(b)/1752/2022, Dated 07.07.2022 Enclosure 2
- 3. Amendment of EC of ACIL Letter No. SEIAA/GUI/EC/3(b)/1408/2023, Dated 02.11.2023 Enclosure 2
- 4. Consent to operate issued by GPCB dated 22.06.2023 Attachment-5

Dear sir,

With reference to above subject, please find enclosed herewith six-monthly environment clearance (EC) compliance status of stand-Alone Cement Grinding Unit of Adam Cement Limited Dahej industrial Estate Taluka vagra, district Bharuch (Gujarat) for the period of <u>April 2024 to September 2024</u>.

Above mentioned plant is in operation and started production dated 01st July 2023.

This for your kind information and record.

Thanking You

Yours faithfully

For Adani Cement Industries United

(Ajay Sharma)

**Plant Head** 

Post Received
Guarat Pollution Control Board

BHARUCH.

Encl.: As above

CC to:

**Member Secretary** 

Gujarat Pollution Control Board Paryavaran Bhavan, Sector-10A, Gandhinagar

Gujarat - 382010

The Regional Office

The Regional Officer
Gujarat Pollution Control Board
C-1/119/3, GIDC ESTATE, PHASE-II,
Narmada Nagar, Bharuch – 3922015

Deputy Director General of Forest (C), Ministry of Env, Forest and Climate Change, integrated Regional Office, Gandhinagar A wing - 407 & 409

Aranya Bhawan Near CH-3 Circle, Sector -10A, Gandhi Nagar - 382010

# SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE STAND-ALONE CEMENT GRINDING PLANT

# AT VILLAGE DAHEJ (DAHEJ INDUSTRIAL ESTATE), TALUKA VAGRA, DISTRICT BHARUCH, GUJARAT

## Submitted to:

State Environmental Impact Assessment Authority, Gujarat.
RO - Ministry of Environment, Forests & Climate Change, Bhopal.
Gujarat Pollution Control Board, Gandhinagar (Gujarat);
RO - Gujarat Pollution Control Board, Bharuch (Gujarat)



# **Submitted By:**

Adani Cement Industries Limited

Dahej, Gujarat

PERIOD: April - 2024 to September - 2024

# **CONTENTS**

Sr.	Title	Enclosure/
No.		Attachment
1	Compliance status of Environmental Clearance	Enclosure – 1
2	Copy of Environment Clearance	Enclosure – 2
3	Year wise budget allocation for activities under CER	Attachment – 1
4	Compliance to the applicable standard conditions of OM dated 09.08.2018	Attachment – 2
5	Point wise response to the issues raised during public hearing	Attachment – 3
6	Copy of advertisement	Attachment – 4
7	Copy of Consent to Establish	Attachment – 5
8	Environmental Monitoring Report	Attachment – 6
9	OHS Performance	Attachment – 7
10	Responsibility Matrix for EMP implementation	Attachment - 8
11	List of Bag filter	Attachment - 9
12	Screenshot of online data transmission system	Attachment - 10
13	Environment Policy	Attachment - 11
14	Photograph of STP	Attachment - 12



Enclosure-1

COMPLIANCE TO THE CONDITIONS STIPULATED IN ENVIRONMENTAL CLEARANCE [Vide letter No. SEIAA/GUJ/EC/3(b)/633/2019, Dated: 3rd May, 2019] FOR STAND ALONE CEMENT GRINDING UNIT OF ADANI CEMENTATION LIMITED (ACL) and EC transferred to Adani Cement Industries Limited (ACIL) [vide letter no. SEIAA/GUJ/EC/3(b)/1752/2022 dated 07.07.2022] and further EC amendment [vide letter no. SEIAA/GUJ/EC/3(b)/1408/2023 dated 02.11.2023] AT DAHEJ INDUSTRIAL ESTATE, TALUKA VAGRA, DISTRICT BHARUCH (GUJARAT) BY STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY (SEIAA) – GUJARAT

	Additional Condition	Compliance		
	Letter No. SEIAA/GUJ/EC/3(b)/1408/2023, Dated	Compilation		
	02.11.2023			
1	Overall production capacity shall be unchanged and shall be as per EC Granted vide order dated 03.05.2019, even after installing of new hot air generator having the capacity of 100 Lakh K/Hour with pulse jet type bag houses APCM and utilisation of chemical gypsum as a raw material in Cement manufacturing.	Noted and complied		
2	Proponent shall carry out various measures for dust mitigation etc.	Noted and complied		
		Following measures for dust mitigation being followed:		
		1. Dust collection systems (DCS) has been installed at every transfer point and potential source area. A consolidated list of DCS is enclosed as Attachment - 09		
		<ol> <li>Regular cleaning and maintenance have been developed as per schedules.</li> <li>Periodic monitoring and assessment of dust levels is in routine practice. These measures aim to minimize dust emissions and ensure compliance with Environmental regulations.</li> </ol>		
3	PP shall obtain permission under Rule 9 of	Utilization of Gypsum in standalone		



Enclosure-1

hazardous and	Other Wastes	(Management	and	cement	grinding	unit	for
transboundary	Movement)	Rule-2016	for	coprocessi	ng is	govern	by
utilisation of Gypsum.					TM) Rule-2	016.	

# Condition No.24, 26, 28 & 38 shall now be read as under:

A3	Air										
24	Unit shall r	not exc	eed fue	l consumpt	ion for s	stand	d by	Noted	na b	d complied	
	DG set as m	entione	ed belov	v:							
Sr.	Source	of	Stack	Туре	Qty.	of	Тур	9	of	Air	Pollution
No.	emission	With	Height	of Fuel	Fuel		emis	ssions		Control	Measure
	Capacity		(meter	)	MT/Da	y	i.e.		Air	(APCM)	
							Poll	utants			
1	DG Set	(500	18	Diesel	25		PM,	S	02,	Adequate	stack
	KVA)				Ltr/ho	J۲	NOX	(		height	
2	Hot Air gen	erator	70	Coal /	100		PM,	S	02,	Pulse Jet 7	Гуре
	(100	Lakh		Dieses	MT/da	у,	NOX	(			
	Kcal/hour)			/ LNG	5 KL/D	ay.					
				OR/							
				*Biodie							
				sel							
26	Unit shall p		•		•	cess	gas	Noted	ns b	id complied	
	generation	sources	s as mer	ntioned belo		1					
					Type	St	ack /	Vent			_
S.N.	Source of e	missior	1		of		eight			r Pollution	
					emissi		eter)		M	easures (AP	CM)
					on				L_		
	Gypsum cru			os)	PM	18			_	g filter	
	Cement mil	•	2 nos)		PM	70	)			g filter	
	Hot Air gen	erator			PM						Type Bag
		. /-				ļ				ouse	
	Packing pla				PM	50				a filter	
	All convey	or bel	ts and	transfer	PM	30	)		Ba	a filter	
	points					<u> </u>			L_		
		naterial	s and	finished	PM	30	)		Ba	ng filter	
	product sile					<u> </u>	1		<u>.                                    </u>		
28	The Revers							Comp	lied		
	type Bag Ho										
	casing, ade	•		eignt and s	саск то	nico	ring				
	requiremen										
A4	SOLID/HAZ				ا المحامية			Nisha		d Daile a Oa	
38	All the haz			nanagemer	it shaii t	e ta	sken	иосес	o an	id Being Cor	npilea
CN	care as mer	1		Cabassa		<b>0</b>	i-		A		LIVA
S.N.	Type of	Source		Category a	•		antity		nan	agement of	ΠVV
	Waste			Haz. Waste 2016	Rules,	/V\ I	'/Annı	וווט			
^	Hazardous			2010							
Α.	Hazardous Used Oil	Utilitie	) C O	5.1		0.1		1.0		sor Boused	intornally
	USEU OII			5.1			/Annı			se: Reused ubrication o	
		Opera	LIUII			/V\ I	/AIIII	וווע   וווע	טו ונ	onication 0	i sciahei



## Enclosure-1

					chains Oil Disease through approved recycler
	Cotton Rags	Maintenan ce Workshop	33.2	600 kg/Annum	Dispose through CHWIF
	Discarded container s	Paints & Oil Drums	33.1	2000 Nos./Annu m	Dispose through approved Recycler
	Gypsum	Receipt Storage & Consumpti on	Solid Waste 26.1 / 35.3 / 38.1 / C-II-12	0.3 MMTPA	Reception, Collection, transportation, storage and utilize for cement Manufacturing.
В.	Non-Hazaro Dust from APCM	Manufactur ing Process	Solid Waste	0.15 million MT/Annu	100% Recycled in process
	Sludge generatio n from STP	STP	Solid Waste	0.365 million MT/Annum	Manure for green belt development
	Fly ash	Receipt Storage & Consumptio n	Solid Waste	0.6MMTA	Collection, transportation, storage, receipt and consumption for Manufacturing

Rest of all the conditions of environment Clearance order no SEIAA/GUJ/EC/3(b)/1752/2022, Dated 07.07.2022 shall remain unchanged.

Verbatims as mentioned in Transfer of Environmental Clearance in the name of Adani cement Industries Limited vide letter no. SEIAA/GUJ/EC/3(b)/1752/2022 dated 07.07.2022:

- ➤ The name of the unit read as "Adani cement Industries Limited" in place of "Adani Cementation Limited" in a. Page1. sub Line 1, b. page1. para 2 Line 1, c. page5. issued to Line 1 of Environmental Clearance order no. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/052019.
- ➤ Rest of all the conditions of the Environment Clearance orders no. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019 shall remain unchanged.

## Compliance

- Noted and Compliance assured

Α	Specific Condition	Compliance
	SEIAA/GUJ/EC/3(b)/633/2019, Dated 03.05.2019	
1	Project proponent shall procure raw materials like clinker for the proposed project from the authorized units having Environmental Clearance as per the EIA Notification 2006, CTE & CC&A	<ul> <li>Noted and being Complied</li> <li>Clinker for grinding unit is being procured from Rabariyawas, Marwar, Munwa.</li> </ul>



2	Complete Zero Liquid Discharge (ZLD) status shall be maintained all the time and there shall be no drainage connection from the premises	Dahej Cement Grinding Unit is dry process Zero Liquid discharge (ZLD) plant. Water is required during the manufacturing of cement only for cooling of plant machinery and green belt development. Hence the water is completely consumed during the process. As a result, no effluent is generated. In view of this, an effluent treatment plant is not required and hence installation of an effluent monitoring system is not applicable to the unit.
3	The project proponent shall allocate the separate fund of Rs. 6.65 Crores i.e. 1.2 % of the capital investment for activities mentioned in EIA report under Corporate Environment Responsibility (CER) In accordance to the MoEFCC's Office Memorandum No. F.No.22-65/2017-IA.III dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent	The provisions contained in the Ministry's OM, vide F.No.25-65/2017-IA.III dated 01.05.2018 are being complied. The detail of the CER activities along expenditure incurred out during the period is given as Attachment 01
4	Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No. 22-34/2018-IA .III dated 09/08/2018 for Stand-alone Cement grinding units without Captive Power Plant as mentioned at Sr. no. xii	<ul> <li>Noted and complied</li> <li>Compliance to the conditions of applicable standard OM prescribed by MOEFCC is enclosed as Attachment-2</li> </ul>
5	The Project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed m Environment (Protection) Rules 1986 v1de G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and connected to SPCB and CPCB Online and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Noted and Complied Continuous monitoring system has been installed for monitoring of PM concentrations and the online data are available on GPCB website.  All equipment is installed with pollution control devices to maintain the dust emission well within the limits at bag filter.



6	The Project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority.	Noted and complied. The guidelines of GPCB are being adhered.
7	The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with	CAAQMS has been installed data being monitored in CCR and local station. Also, regular monitoring by independent laboratory recognized by NABL is being carried out and submitted to GPCB and MoEFCC.  Ambient air quality monitoring report is attached as Attachment 06
8	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986	Noted and complied. Adequate air pollution control system has been provided to control fugitive dust emission at various location i.e. transfer points, raw material handling, bagging, and packing areas. Etc. All conveyors are covered with GI sheets. Finished products are dispatched by covered wagon or truck to prohibit fugitive emission. List of bag filters are given in <b>Attachment 09</b>
9	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report	Noted and Complied Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company is in place. Year wise fund allocation under CER is given as <b>Attachment 01</b>
10	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986	Noted and complied. The fugitive emission standards are being followed, and parameters are maintained within the range. The monitoring data of fugitive emission is attached as Attachment 06



11	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards	Noted and Complied Adequate air pollution control system has been provided to control fugitive dust emission at various location i.e., transfer points, raw material handling, bagging, and packing areas. Etc. All conveyors are covered with GI sheets. Finished products are dispatched by covered wagon or truck to prohibit fugitive emission. List of bag filters are given in <b>Attachment 09</b>
12	PP shall ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash	Noted and Complied  All raw materials are transported by covered vehicle to prevent spillage and dust generation during transportation. The fly ash is transported in enclosed bulkers.
13	Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.	CREP is being implemented. Compliance to the Corporate Responsibility for Environmental Protection (CREP) is enclosed as Attachment 8A
14	All the issues raised in the public hearing shall be comprehensively addressed/complied with in a time bound manner	Noted and Compliance assured. Commitments made in the EIA/EMP report are being followed. The detail of EIA/EMP expenditure are attached as Attachment 03
15	The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority	
16	The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E; :) dated 16th November 2009 shall be complied with	CAAQMS has been installed data being monitored in CCR and local station. Also, regular monitoring by independent laboratory recognized by NABL is being carried out and submitted to GPCB and MoEFCC.  Ambient air quality monitoring report is attached as Attachment 06
A2	Water	
17	Total water requirement for the project shall not exceed 480 KI/day: Unit shall reuse 180 KI/Day of treated sewage and trade effluent for dust suppression and gardening & plantation within	Noted and complied.



S.N.	Source of emission	n		of	Heigh			ures (APC	
_	generation source			W. <b>Type</b>	Stack	/ Vent	Air	Pollution	Control
26	Unit shall provide	•		•	ess ga			-	
							g filter.		
					devic			ain the thin the	
						with	•	llution	control
	generation sources as mentioned above.					All e	quipm	ent are	installed
20	Unit shall provide adequate APCM with flue gas generation sources as mentioned above.					s inotec	1 9110 C	ompnea.	
25	(500 KVA)	e adocust	A DCM	Ltr/hou		s Notos	d and or	height omplied.	
1	DG Set	18	Diesel	25	P/	Λ, SO2, N		Adequat	e stack
No.	emission With Capacity	Height (meter)	of Fuel	Fuel MT/Day	er	nissions r Polluta	i.e., nts	Control (APCM)	Measure
Sr.	Source of	1	Туре	Qty.	of Ty	pe	of		Pollution
24	Unit shall not exc		งแรบเทษผ	on for St	.aiiu D		d and oned a	•	olied as
<b>A3</b>	Air	and fuel a	oncumoti	on for a	-20d b	/ Notos	1 20	1 0000	lind as
	done to remove su	ispended m	natter						
	recharging the su						hment		2.0000 00
	and to use the sa of the project						oranhs	are en	closed as
	rooftop of the bui	-	-	-			to roof	top rainw	ater.
23	The company s							been ins	
	adequate capacity during rainy days	y ioi storaç	je or trea	teu wasi	.ewate	'			
22	Unit shall provid			•			d and co	omplied	
	of wastewater out	side the pr	emises in	any cas	e.				
	plantation/Garder stored within pre	-							
	effluent-may r	ot be	require	d for	th	9			
21	During monsoon	season	when to	eated	sewag			omplied	111.12
							graphs sed as <i>i</i>	of S <b>Attachme</b>	TPs are
						suppr	ession.		
							develo <sub>l</sub> ing or		nd water for dust
									for green
	gardening/plantat	_				The	tre	ated	domestic
	and it shall be t STP and treate							•	city of 10 d at plant.
20	Domestic wastew	•						omplied	oity of 10
	shall be discharge	d outside p	remises t	y any me	eans				
19	Total industrial et shall be used for						and co	omplied	
	shall not exceed 1	71 KL/day						· 	
18	authority in this re The industrial eff	_			projec	t Notec	d and co	omplied	
	ground water. N				concer	n			
	exceed 300 KL/I		•						
	premise and hence	e. freshwa	ter requir	ement s	hall no	r			



		emissi on	(meter)	)	
	Gypsum crusher (Total 1 nos)	PM	18		Bag filter
	Cement mill (Total 2 nos)	PM	70		Bag filter
	Packing plant (Total 3 nos)	PM	50		Baa filter
	All conveyor belts and transfer	PM	30		Baa filter
	points				
	All raw materials and finished product silos	PM	30		Bag filter
27	'			while	red will explore the sibility of better result e implementing APCM
28	The Reverse Pulse Jet Type Bag provided with proper metallic casing height and stack monitoring requirem	, adequat	e stack	Compl	lied
29	The design the air pollution cont (APCE) shall be validated by the re and APCEs shall be fabricated commissioned under guidance and su said institute	puted in , erecte	stitutes d and	Noted	I and compliance assured.
30	The APCM shall be operated effectively to achieve the norms pr GPCB at stack outlet		•	Noted	l and compliance assured.
31	Acoustic enclosure shall be provided to mitigate the noise pollution and the EPA Rules for air and noise emiss	shall con	form to	Noted	l and compliance assured.
32	Stack/Vents of adequate height shal per the prevailing norms f emission/Process gas emission	l be prov		Noted	l and compliance assured.
33		to whic a manner quipment	ch it is er that in nt(s) not		
34	Regular periodic preventive mainter pollution control systems shall be cathe operation phase.			Noted	l and compliance assured.
35	The applicant shall carry out yea evaluation of the air pollution conthrough any reputed institute and fuin this regard to the Gujarat Pollutic every year	trol equipment's that the ACIL will engage rnish the reports reputed institute for yearly performance evaluation of Air			
36	The fugitive emission in the work zo and ambient air quality shall be emission shall confirm to the standar the concerned authorities includi Industrial Health and Safety as v Pollution Control Board from time to	monitored. The rds prescribed by ing Director of well as Gujarat			l and compliance assured.



	indicative of fugitive em		all be followed to red	duce the				
a)		shall be pr	ovided at all load	ing and	No	ted and compliance assured.		
b)	Water shall periodically except wet	be sprayed of to retain some gypsum to re	on all raw materials s some moisture in t duce the fugitive em	op layer	Noted and compliance assured.			
c)	All transfer	points shall b	e fully enclosed		No	ted and compliance assured.		
d)		noved / swept	e ground and other regularly and water		No	ted and compliance assured.		
e)	properly to vehicular m	o reduce th novement	either asphalted o e fugitive emission	during		ted and compliance assured.		
f)	and extracemissions a material lo stacking, b of Practice	ction system at various mat ading, unload agging and p a issued by tl	all adequate dust control fugiting to control fugiting ereas (ling, conveying, tran acking etc.) Guideling CPCB for preventission shall be follow	ve dust (i.e. Raw sporting, nes/Code tion and	to ext em cor	ted and compliance assured install dust collection and craction system at each dust litting sources during both instruction and operation age.		
37	PM <sub>10</sub> , PM <sub>2.5</sub> impact zor Ambient Ai standards s these leve limits, nece taken imme frequently	gular monitoring of ground level concentration of $n_{10}$ , $PM_{2.5}$ , $SO_2$ & NOx shall be carried out in the fact zone and its records shall be maintained. Which the state of the property of the maintained of the state of the state of the prescribed of the prescribed of the state of the prescribed of the state o				Noted and compliance assured make provision for regular monitoring of AAQ in impact zone and results are being reported to GPCB periodically.  Plant is under operation since July 2024 Quarterly Ambient Air Quality monitoring report for April 2024 to September 2024 is enclosed (Attachment – 6)		
A4	SOLID/HAZ	ARDOUS WAS	STE					
38		ardous waste ntioned below	management shall l v:	be taken	No	ted and being complied		
S.N.	Type of Waste	1	Category as per Haz. Waste Rules, 2016	Quantity MT/Ann	,	Management of HW		
A.	Hazardous							
	Used Oil	Utilities & Operation	5.1	0.1 MT/Annum		Grease: Reused internally for lubrication of scraper chains Oil Disease through approved recycler		
	Cotton Rags	Maintenan ce Workshop	33.2	600 kg/Annum		Dispose through CHWIF		
	Discarded container s	Paints & Oil Drums	33.1	2000 Nos./An m	nu	Dispose through approved Recycler		
B.	Non-Hazard		_	_				
	Dust from	Manufactur	Solid Waste	0.15 mil	lion	100% Recycled in process		



	APCM	ing Process		MT/Annu			
	Sludge	STP	Solid Waste	0.365	Manure	for gre	en belt
	generatio			million	developr	ment	
	n from			MT/Annum			
	STP	5	0 11 1 11 1	0.4000=0	0 11		
	Gypsum	Receipt	Solid Waste	0.1MMTA			sportation,
		Storage &			storage, consump	•	
		Consumptio n			Manufac		
	Fly ash	Receipt	Solid Waste	0.6MMTA			sportation,
	1 19 0311	Storage &	30110 110366	0.0////////	storage,		•
		Consumptio			consump	•	
		n			Manufac		
A5	SAFETY						
39	Proper vent	ilation shall be	provided in the wo	rk area	Noted	and	compliance
					assured		
40			ipment's shall be		Noted	and	compliance
			all be ensured and su		assured		
41			ide readily available	in adequate		and	compliance
4.5	quantity in		1		assured		
42	•		ne ambient air mo	•		and	compliance
			uring concentration		assured		
		dust etc. thro ords shall be m	ugh qualified indust	nai nygienist			
43			eillance of the wor	kere chall ha	Noted as	nd boio	ng complied
4)	•		I be maintained. Pre		ואטנפט פו	וט טפוו	ig complied
			examination for all	• •			
	•		gular basis as per Fa				
	Rules		<b>9</b>				
44	All necessa	ry safety meas	sures shall be taken	to avoid any	Noted be	eing co	mplied
	kind of acci						
45	_	•	to all the workers of	on safety and	Noted be	eing co	mplied
0.5	health aspe	cts.					
A6	NOISE	anica laval in	and assumed the ols	at assa shall	Noted by		maliad
46			and around the pla rescribed standards		ואטנפט טנ	eniy co	mpheo
	•	•	including acousti	, ,			
			res vibration dampe				
			on. The ambient nois				
		-	dards prescribed				
			Act and Rules. Wo				
			e as per the Facto	•			
	Rules		<u> </u>				
A7	CLEANER P		AND WASTE MINIMI				
47	The unit		take the Cleaner		Noted be	eing co	mplied
	Assessment	,	through a	reputed			
		-	d shall form a CP				
			ndations thereof alo	ong with the			
40			shed to the GPCB	h io cosses	Notadi	nio	malica
48			o use more fly as		иосеа ре	eing co	implied
		ing without o	compromising the q	uality of the			
	cement.						



A8	GREEN BELT AND OTHER PLANTATION	
49	Green bell shall be developed in an area equal to 33 the plant area with a native tree species in accord with CPCB guidelines. The greenbelt shall inter alia of	lance assured.
	the entire periphery of the plant.	Plantation being carried out in phased manner. About 1000 Trees have been planted during 1st phase of plantation all along plant boundary covering about 1 ha. area
		It is planned to complete 33% of plant area before end of year 2025. Considering 2 <sup>nd</sup> & 3 <sup>rd</sup> phase of plantation.
		Photographs of the existing green belt aera are enclosed as <b>Attachment-14</b> for your perusal.
50	The unit shall develop green belt within the far premises as per the CPCB guidelines, consisting of at three rows of trees of local species on periphery. How if the adequate land is not available within the premather unit shall take up adequate plantation at suitable land on roadsides and other open areas in nearby local or schools in consultation with the Gram Pancha GPCB and submit an action plan of plantation for three years to the GPCB.	least assured vever, mises open cality yat /
В	OTHER CONDITIONS	
51	Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No.22-34/2018-IA.III dated 09/08/2018	
52	In case of use of spray dryer, the unit shall provide the adequate & efficient APCMs with spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party monitoring of the proposed Spray dryer & it's APCM through the credible institutes and study report for impacts on Environment and Human Health shall be submitted to GPCB every year along with half yearly compliance report.	Noted and compliance assured
53	The project proponent shall allocate the separate fund for Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F.No.22-65/2017-IA.III date Qf/05/2018 to carry out the activities under CER in affected area around the project. The entire activities proposed under CER shall be monitored	Budget allocated for Corporate Environmental Responsibility (CER) in EIA report to be used in line with suggested activities simultaneously with construction activities. Detailed year wise action plan for implementation of CER is enclosed as <b>Attachment-1</b>



	regional office of MoEFCC as a part of half-yearly	
	compliance report and to district collector. The	
	monitoring report shall be posted on the website of	
	the project proponent.	
54	In the event of failure of any pollution control system adopted by the unit, the unit shall be safety closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.	·
55	All the recommendations / commitments made in the EIA/EMP report of the project shall be implemented.	*
56	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority.	
57	During material transfer, spillages shall be avoided, and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.	
58	Pukka flooring impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.	
59	The funds earmarked for environment protection measures shall be maintained in a separate account and there shall not be any diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards shall be reported	Provision of separate fund for Environmental Protection has
60	Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly	Noted and being complied
61	No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority	
62	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules	
63	The granting of Environment Clearance to the project by the SEIAA does not restrain or dilute any legal action to be initiated against the project proponent by any authority including the GPCB, for commencing the construction work and production without obtaining prior Environment Clearance.	
64		Noted and compliance assured



	(Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.	
65	The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.	·
66	implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Environmental Pollution Control Measures (EPCM) including CER & CSR in EIA report to be used for implementation of stipulated conditions simultaneously with construction activities
67	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.	<ul> <li>Complied</li> <li>information to the public regarding EC issued by the SEIAA for this project is published on 14th May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)</li> <li>Copy of advertisement is enclosed as Attachment-4</li> </ul>
68	The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIM or any other competent authority for the purpose of the environmental protection and management.	
69	It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.	Noted and Complied  (This compliance report is from April-2024 to September-2024 being submitted by ACIL for Dahej Cement Grinding Unit)
70	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provision of Environment (Protection) Act, 1986	Noted
71	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	Noted
72	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.	Noted
73	The company in a time bound manner shall	Noted



	implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the	
	same is found necessary.	
74	The project authorities shall inform the GPCB, Regional Office of MOEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	awaited. It will be informed to RO-GPCB, Bharuch and SEIAA once
75	This environmental clearance is valid for seven years from the date of issue	Noted
76	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010	
77	Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes this environment clearance cancelled.	



# GOVERNMENT OF INDIA MOEF & CC STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY GUJARAT

No. SEIAA/GUJ/EC/3(b)/ 1468/2023

Date: 2 NOV 2023

By R P A D

Amendment to Environment Clearance Order No:- SEIAA/GUJ/EC/3(b)/1752/2022 Dated 07/07/2022.

(Under the provision of Environmental Impact Assessment (EIA) Notification, 2006)

In exercise of the power conferred under the provision of Environmental Impact Assessment (EIA) Notification, 2006 under sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986, the Environment Clearance granted M/s. Adami Cement Industries Limited for setting up of manufacturing plant for 'Cement Plant' (Stand-alone clinker grinding facility) at Plot no. 136/P to 141/P, 144/P, 145/P, 151/P to 156/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of Village: Dahej, Dahej Industrial Estate, Ta. Vagra, District: Bharuch, Gujarat vide this office letter no. SEIAA/GUJ/EC/3(b)/1752/2022 Dated 07/07/2022, is being subjected to amendment in Condition No. 24, 26, 28 & 38.

And whereas SEIAA has granted Environment Clearance vide office order letter no. SEIAA/GUJ/EC/3(b)/1752/2022 Dated 07/07/2022, under the provisions of the aforesaid Notification.

And whereas project proponent has applied for amendment in the environmental clearance vide their online application vide No. SIA/GJ/IND3/302856/2023 dated 14/08/2023. The project was scheduled for hearing in the SEAC meeting held on 29/08/2023.

The SEAC, Gujarat had recommended the project vide their letter dated 29/09/2023 to grant amendment in Environmental Clearance to the SEIAA, Gujarat based on the decision taken during SEAC meeting held on 29/08/2023. The proposal was considered by SEIAA, Gujarat in its meeting held on 20/10/2023 at Gandhinagar. After careful consideration, amendment in **Condition No. 24, 26, 28 & 38** of Environment Clearance order dated: 07/07/2022 is issued as below.

## Additional Conditions:

- 1. Overall production capacity shall be unchanged and shall be as per EC granted vide order dated 3.5.2019, even after installing of New hot air generator having capacity of 100 Lakh K/ Hour with pulse jet type bag houses APCM and utilisation of chemical gypsum as Raw material in Cement manufacturing.
- 2. Proponent shall carry out various measures for dust mitigations etc.
- 3. PP shall obtain permission under Rule-9 of Hazardous & Other Wastes (Management and Transboundary Movement) Rule-2016 for utilization of Gypsum.

## Condition No. 24, 26, 28 & 38 shall now be read as under:

Condition No. 24 (A. 3 Air):

24. Unit wants to install one Hot Air generator with the capacity of 1 Cr klcal/day

	Sr. No.	Source of emission with capacity	Stack height (meter)	Type of fuel	Quantity of fuel MT/Day	Type of air emission i.e. Air pollutants	Air pollution control measures
	1.	DG Set (500 KVA)	18	Diesel	25 Litter/hr.	PM, SO2, NOx	Adequate stack height
AA	7	Hot Air generator (100 Lakh Kcal/hour)	70	Coal / Diesel / LNG OR/ *Bio Diesel	100 MT/day, 5 KL/Day,		Pulse Jet Type Bag House

Condition No. 26 (A. 3 Air):

26. Unit shall provide adequate APCM with process gas Generation sources as mentioned below.

E-mail: msseiaagi@gmail.com, Website:- www.seiaa.gujarat.gov.in

Sr. no.	Source of emission	Type of emission	Stack/vent Height (meter)	Air Pollution Control Measures
1.	Gypsum crusher (Total 1 Nos.)	PM	18	Bag Filter
2.	Cement mill (Total 2 Nos.)	PM	70	Bag Filter
	Hot Air generator	PM		Pulse Jet Type Bag House
3.	Packaging plant (Total 3 nos.)	PM	50	Bag Filter
4.	All conveyor belts and transfer points	PM	30	Bag Filter
5.	All raw materials and finished product silos	PM	30	Bag Filter

## Condition No. 28(A. 3 Air):

The Reverse Pulse Jet Type Bag Filters and Pulse jet type Bag House shall be provided with proper metallic casing, adequate stack height and stack monitoring requirement facility.

### Condition No. 38 (A. 4 Solid/Hazardous Waste):

38. All the hazardous waste management shall be taken care as mentioned below:

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation	Category as per Haz. Waste Rules, 2016	Quantity, MT/ Annum	Management of HW
Α.	Hazardous				
1	Used Oil	Utilities & Operation	5.1	0.1 MT/Annum	Grease: Reused internally for lubrication of scraper chains Oil: Dispose through approved recycler
2	Cotton Rags	Maintenance work shop	33.2	600 kg/Annum	Dispose through approved CHWIF
3	Discarded containers	Paints and oil drums	33.1	2000 Nos./Annum	Dispose through approved Recycler
4.	Gypsum	Receipt, Storage & Consumption	Solid Waste 26.1/35.3/38. 1/C-II-12	0.3 MMTPA	Reception, Collection, transportation, storage and utilize for cement manufacturing.
B.	Non Hazardous	•			<u> </u>
5.	Dust from APCM	Manufacturin g process	Solid Waste	0.15 MMTPA MT/Annum	100% Recycled in process
6.	Sludge generation from STP	STP	Solid Waste	0.365 MT/Annum	Manure for green belt development
7.	Fly ash	Receipt, Storage & Consumption	Solid Waste	0.6MMTPA	Collection, transportation, storage, receipt and consumption for cement manufacturing

Rest of all the conditions of the Environment Clearance orders no SEIAA/GUJ/EC/3(b)/1752/2022 Dated 07/07/2022 shall remain unchanged.

(ASAV P. GADHVI)

**Member Secretary** 

Issued to:

M/s. Adani Cement Industries Limited

Plot no. 136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P

Village: Dahej, Dahej Industrial Estate, Ta. Vagra, District: Bharuch, Gujarat



E-mail: msseiaagj@gmail.com, Website:- www.seiaa.gujarat.gov.in

# PRAKASH K. MAJMUDAR MEMBER SECRETARY SEIAA (GUJARAT)



# STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY GUJARAT

No. SEIAA/GUJ/EC/3(b)/ 17-52/2022

Date: 0 7 JUL 2022 B

BY R.P.A.D.

Page 1 of 2

Transfer of Environment Clearance Order No:- SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019.

(Under the provision of Environmental Impact Assessment (EIA) Notification, 2006)

In exercise of the power conferred under the provision of Environmental Impact Assessment (EIA) Notification, 2006 under sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986, the Environment Clearance granted to M/s. Adami Cementation Limited at Survey No. 136/P, 137/P, 138/P, 139/P, 140/P, 141/P, 144/P, 145/P, 151/P, 152/P, 153/P, 155/P, 162/P, 174/P, 175/P, 176/P, 178/P, 179/P, 187/P, 188/P, 189/P, 190/P, 191/P of Village Dahej and Survey No. 125/P, 124/P of Village Lakhigam in Dahej Industrial Estate, Tal. Vagra, Dist. Bharuch vide this office letter no. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019, is being subjected to EC transfer for the following change in the project.

And whereas SEIAA has granted Environment Clearance vide office order letter no. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019, under the provisions of the aforesaid Notification.

And whereas project proponent has applied for Name change and EC transfer in the environmental clearance vide their online application vide No. SIA/GJ/IND2/216009/2021.

The SEAC, Gujarat had recommended the project vide their letter dated 21/05/2022 to grant transfer in Environmental Clearance to the SEIAA, Gujarat based on the decision taken during SEAC meeting held on 24/03/2022. The proposal was considered by SEIAA, Gujarat in its meeting held on 01/07/2022 at Gandhinagar. After careful consideration, Environment Clearance order No. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019 is hereby transferred to M/s. Adani Cement Industries Limited from M/s. Adani Cementation Limited.

The name of the unit read as "Adani Cement Industries Limited" in place of "Adani Cementation Limited" in a. Page 1. - Sub. - Line 1, b. Page 1. - Para 2 - Line 1, c. Page 5. - Issued to - Line 1 of Environment Clearance order No. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019.

Rest of all the conditions of the Environment Clearance orders no SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019 shall remain unchanged

(PRAKASH K. MAJMUDAR)

Member Secretary

Issued to:

Adani Cement Industries Limited Adani Corporate House, Shantigram, Near Vaishno Devi Circle, S.G. Highway, Khodiyar,

Ahmedabad -382421



Copy to:-

1. The Secretary, SEAC, C/O. G.P.C.B. Gandhinagar - 382010.

The Additional Chief Secretary, Forests & Environment Department, Govt. of Gujarat, Block 14, 8<sup>th</sup> floor, Sachivalaya, Gandhinagar-382010.

 The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD -cum-Office Complex, East Arjun Nagar, New Delhi-110032

Office: Gujarat Pollution Control Board. "Paryavaran Bhavan" Sector-10 A, Gandhinagar-382010 Phone No.:- (079) 232-32152,232-41514 Fax No.:- (079) 232-22784

E-mail: msseiaagj@gmail.com, Website:- www.selaa.gujarat.gov.in

The Additional Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (WZ), E-5, Arera Colony, Link Road-3, Bhopal-462016, MP

Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-

The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A, Gandhinagar-382010

Select File.



# S. M. SAIYAD, IFS MEMBER SECRETARY SEIAA (GUJARAT)



# STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY GUJARAT

Government of Gujarat

No. SEIAA/GUJ/EC/3(b)/ 6 3 3 /2019

Date: 3 MAY 2019

ByRPAD

Sub: Environment Clearance to M/s. Adam Cementation Limited for setting up of stand-alone Cement grinding unit at Survey 136/P, 137/P, 138/P, 139/P, 140/P, 141/P, 144/P, 145/P, 151/P, 152/P, 153/P, 154/P, 155/P, 162/P, 176/P, 176/P, 178/P, 187/P, 188/P, 189/P, 190/P, 191/P, of village: Dahej and Survey no. 125/p, 124/p of village: Lakhigam, Bahej Industrial Estate, Ta- Vagra, Dist - Bharuch. In Category 3(b) of Schedule annexed with EIA Notification dated 14/09/2006.

Ref: Your Proposal No. SIA/GJ/IND/30696/2017.

Dear Sir,

This has reference to your application along with EIA report dated 04/02/2019 submitted to SEIAA, seeking Environmental Clearance under Environment Impact Assessment Notification, 2006.

The proposal is for Environmental Clearance to M/s. Adani Cementation Limited for setting up of stand-alone Cement grinding unit at Survey 136/P, 137/P, 138/P, 139/P, 140/P, 144/P, 144/P, 145/P, 151/P, 152/P, 153/P, 154/P, 155/P, 162/P, 175/P, 176/P, 176/P, 178/P, 179/P, 187/P, 188/P, 189/P, 190/P, 191/P, of village: Dahej and Survey no. 125/p, 124/p of village: Lakhigam, Dahej Industrial Estate, Ta- Vagra, Dist - Bharuch. It is a proposed unit for manufacturing following products, which falls in the category - 3(b) of the schedule of the EIA Notification 2006:

A1			
	CAS no. /Cl no.	Quantity, MT/Month	End-use of products
Portland Pozzolana Cement (PPC)		<del> </del>	Cement will be used
Ordinary Portland Cement(OPC)		_] ·	as Raw material for
	65997-15-1	<b>-</b>	infrastructure
Portland Composite Cement (PCC)	65997-15-1	Capacity)	construction
Total		3.5	O TO TO COLOT
		Name of the Products CAS no. /Cl no.  Portland Pozzolana Cement (PPC) 65997-15-1  Ordinary Portland Cement (PSC) 65997-15-1  Portland slag Cement (PSC) 65997-15-1  Portland Composite Cement (PCC) 65997-15-1	Portland Pozzolana Cement (PPC) 65997-15-1 2 Million MTPA Ordinary Portland Cement (OPC) 65997-15-1 (In two phases each Portland slag Cement (PSC) 65997-15-1 with 1 MMTPA Portland Composite Cement (PCC) 65997-15-1 Capacity)

The project activity is covered in 3(b) and is of 'B' Category. Public hearing was conducted on 07/12/2018.

The SEAC, Gujarat vide their letter dated 20/03/2019 had recommended to the SEIAA, Gujarat, to grant the Environment Clearance for the above mentioned project based on its meeting held on 26/02/2019. The proposal was considered by SEIAA, Gujarat in its meeting held on 25/03/2019 at Gandhinagar. After careful consideration, the SEIAA hereby accords Environmental Clearance to above project under the provisions of EIA Notification dated 14th September, 2006 subject to the compliance of the following conditions.

## A. CONDITIONS

## A. 1 SPECIFIC CONDITION:

- Project proponent shall produce raw materials like clinker for the proposed project from the authorized units having Environmental Clearance as per the EIA Notification 2006, CTE & CC&A.
- Complete Zero Liquid Discharge [ZLD] status shall be maintained all the time and there shall be no drainage connection from the premises.
- 3. The project proponent shall allocate the separate fund of Rs. 6.65 Crores i.e. 1.2 % of the capital investment for activities mentioned in EIA-report under Corporate Environment Responsibility (CER) in accordance to the McEFCC's Office Memorandum No. F.No.22-65/2017-IA.III dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of McEF&CC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent.
- 4. Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No. 22-34/2018-IA.III dated 09/08/2018 fc/r Stand-alone Cement grinding units without Captive Power Plant as mentioned at Sr. no. xii.

The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated [25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs ecognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

Grand Description of the Strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Grand Description of the Strictly authority.

Office: Gujarat Pollution Control Board, "Paryavaran Bhavan" Sector-10 A, Gandhinagar-382010

Phone No.:- (079) 232-32152,232-41514 Fax No.:-(079) 232-22784

- 7. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.
- 8. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- 9. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- 10. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- 11. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- 12. PP shall ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- 13. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- 14. All the issues raised in the public hearing shall be comprehensively addressed / complied with in a time bound manner.
- 15. The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority.
- 16. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.

#### A. 2 WATER:

- 17. Total water requirement for the project shall not exceed 480 KL/Day. Unit shall reuse 180 KL/Day of treated sewage and trade effluent for dust suppression and gardening & plantation within premises and hence, fresh water requirement shall not exceed 300 KL/Day and it shall be met through ground water. Necessary permission from concern Authority in this regards shall be obtained.
- 18. The industrial effluent generation from the project shall not exceed ATA KL/day.
- 19. Total industrial effluent 171 KL/Day of cooling reject shall be used for dust suppression and no effluent shall discharged outside premises by any means.
- 20. Domestic wastewater generation shall be 9 KL/Day and it shall be treated through adequate capacity STP and sewage shall be reused for gardening/plantation within premises.
- 21. During monsoon season when treated sewage effluent may not be required for the plantation / Gardening / Green belt purpose, it shall be stored within premises. There shall be no discharge of waste water outside the premises in any case.
- 22. Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water during rainy days.
- 23. The company shall harvest rainwater from the rooftop of the building to recharge the ground water and to use the same water for the various activities of the project to conserve fresh water. Before recharging the surface run off, pre-treatment must be done to remove suspended matter.

#### A. 3 AIR:

24. Unit shall not exceed fuel consumption for stand by DG set as mentioned below:

Sr.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	DG Set (500KVA)	18	Diesel	25 litre/hr.	PM, SO <sub>2</sub> , NO <sub>x</sub>	Adequate stack height

- 25. Unit shall provide adequate APCM with flue gas generation sources as mentioned above:
- 26. Unit shall provide adequate APCM with process gas generation sources as mentioned below:

\$.N.	Source of emission	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Gypsum crusher (Total 1 nos)	PM	1 18	Bag filter
2	Cement mill (Total 2 nos)	PM	70	Bag filter
3	Packing plant (Total 3 nos)	РМ	50	Bag filter
4	All conveyor belts and transfer points	PM	30	Bag filter
5	All raw materials and finished product silos	PM	35	Bag filter

- 27. The above-mentioned measures are indicative and the unit may explore the possibilities of other latest devices also to achieve the better results & better compliance of the air pollution control norms prescribed by the Gujarat Pollution Control Board (GPCB).
- 28. The Reverse Pulse Jet Type Bag Filters shall be provided with proper metallic casing, adequate stack height and stack monitoring requirement facility.
- 29. The design the air pollution control equipments (APCE) shall be validated by the reputed institutes and APCEs shall be

- fabricated, erected and commissioned under guidance and supervision of the said institute.
- 30. The APCM shall be operated efficiently and effectively to achieve the norms prescribed by the GPCB at stack outlet.
- Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and shall conform to the EPA Rules
  for air and noise emission standards.
- Stack/Vents of adequate height shall be provided as per the prevailing norms for flue gas emission/Process gas emission.
- 33. Interlocking facility of the pollution control equipment and the equipment(s) to which it is attached should be provided in such a manner that in the event of pollution control equipment(s) not working, the respective unit(s) is shut down automatically.
- 34. Regular periodic preventive maintenance of the air pollution control systems shall be carried out during the operation phase.
- 35. The applicant shall carry out yearly performance evaluation of the air pollution control equipments through any reputed institute and furnish the reports in this regard to the Gujarat Pollution Control Board every year.
- 36. The fugitive emission in the work zone environment and ambient air quality shall be monitored. The emission shall confirm to the standards prescribed by the concerned authorities including Director of Industrial Health and Safety as well as Gujarat Pollution Control Board from time to time. Following indicative guidelines shall be followed to reduce the fugitive emission.
  - a) Enclosure shall be provided at all loading and unloading operations.
  - b) Water shall be sprayed on all raw materials stock pite periodically to retain some moisture in top tayer except wet gypsum to reduce the fugitive emission.
  - c) All transfer points shall be fully enclosed.
  - d) Accumulated dust on the ground and other surfaces shall be removed / swept regularly and water the area after sweeping.
  - e) Internal roads shall be either asphalted or paved properly to reduce the fugitive emission during vehicular movement.
  - f) The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various material handling areas. (eg. raw material loading, unloading, conveying, transporting, stacking, bagging and packing etc.) Guidelines / Code of Practice issued by the CPCB for prevention and control of the fugitive emission shall be followed.

Regular monitoring of ground level concentration of PM10, PM2.5, SO2 & NOx shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If any stage these levels are found to exceed the prescribed limits, recessary additional control measures shall be taken immediately. The location of the stations and frequency of monitoring shall be decided in consultation with the GPCB.

## A. 4 SOLID / HAZARDOUS WASTE:

mpast Aso

38. All the hazardous waste management shall be taken care as mentioned below:

S.N.	Type of Waste	Source	Category as per Haz. Waste Rules, 2016	Quantity, MT/ Annum	. Management of HW
A. /	Hazardous				
1	. Used Oil	Utilities & Operation	5.1	0.1 MT/Annum	Grease: Reused internally for lubrication of scraper chains: Oil: Dispose through approved recycler
2	Cotton Rags	Maintenance // work shop	33.2	600 kg/Annum	Dispose through CHWIF
3	Discarded containers	Paints and oil drums	33.1	2000 Nos./Annum	Dispose through approved Recycler
В.	Non Hazardous	. J. J.			
4	Dust from APCM	Mariufacturing process	Solid Waste	0.15 Million MT/Annum	100% Recycled in process
5	Sludge generation from STP	STP	Solid Waste	0.365 MT/Annum	Manure for green belt development
6	Gypsum	Receipt, Storage & Consumption	Solid Waste	0.1MMTA	Collection, transportation, storage, receipt and consumption for cement manufacturing
7	Fly ash	Recelpt, Storage & Consumption	Solid Waste	0.6MMTA	Collection, transportation, storage, receipt and consumption for cement manufacturing

# A. 5 SAFETY:

- 39. Proper ventilation shall be provided in the work area.
- 40. Personal Protective Equipments shall be provided to workers and its usage shall be ensured and supervised.
- 41. First Aid Box shall be made readily available in adequate quantity in the unit.
- 42. Regular periodic work zone ambient air monitoring shall be carried out for measuring concentrations of cement dust,

- silica dust etc. through qualified industrial hygienist and its records shall be maintained.
- 43. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken on regular basis as per Factories Act & Rules.
- 44. All necessary safety measures shall be taken to avoid any kind of accident.
- 45. Training shall be imparted to all the workers on safety and health aspects.

## A. 6 NOISE:

46. The overall noise level in and around the plant area shall be kept well within the prescribed standards by providing noise control measures including acoustic insulation, hoods, silencers, enclosures vibration dampers etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act and Rules. Workplace noise levels for workers shall be as per the Factories Act and Rules.

## A. 7 CLEANER PRODUCTION AND WASTE MINIMISATION:

- 47. The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP learn in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.
- 48. Efforts shall be made to use more fly ash in cement manufacturing without compromising the quality of the cement.

## A. 6 GREEN BELT AND OTHER PLANTATION:

- 49. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- 50. The unit shall develop green belt within the factory premises as per the CPCB guidelines, consisting of at least three rows of trees of local species on perlphery. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation at suitable open land on road sides and other open areas in nearby locality or schools in consultation with the Gram Panchayat / GPCB and submit an action plan of plantation for next three years to the GPCB.

## B. OTHER CONDITIONS:

- 51. Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No. 22-34/2018-IA.III dated 09/08/2018.
- 52. In case of use of spray dryer, the unit shall provide the adequate & efficient APCMs with spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party monitoring of the proposed Spray dryer & it's APCM through the credible institutes and study report for impacts on Environment and Human Health shall be submitted to GPCB every year along with half yearly compliance report.
- 53. The project proponent shall allocate the separate fund for Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F.No.22-65/2017-IA.III dated 01/05/2018 to carry out the activities under CER in affected area around the project. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEFCC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent.
- 54. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
- 55. All the recommendations / commitments made in the EIA/EMP report of the project shall be implemented.
- 56. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (6 State Government and any statutory authority.
- 57. During material transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
- 58. Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
- 59. The funds earmarked for environment protection measures shall be maintained in a separate account and there shall not be any diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards shall be reported.
- Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly.
- 61. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.
- 62. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution)

  Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
- 63. The granting of Environment Clearance to the project by the SEIAA does not restrain or dilute any legal action to be initiated against the project proponent by any authority including the GPCB, for commencing the construction work and production without obtaining prior Environment Clearance.
- 64. The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.

Office: Gujarat Pollution Control Board, "Paryavaran Bhavan" Sector-10 A, Gandhinagar-382010

Phone No.:- (079) 232-32152,232-41514 Fax No.:- (079) 232-22784 E-mail: msseiaagi@gmail.com, Website:- www.seiaa.gujarat.gov.in

- 65. The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.
- 66. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
- 67. The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
- 68. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.
- 69. It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.
- 70. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 71. The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
- 72. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
- 73. The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary.
- 74. The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- 75. This environmental clearance is valid for seven years from the date of issue.
- 76. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes this environment clearance cancelled.

With regards,

pact A.

Yours sincerely,

(Ş.M. SAIYAD) Mêmber Secretary

issued to:

Mis. Adani Cementation Limited

Mr. Sanjay Prasad (DGM),

CI-28, Ground Floor, South Block, Adani Corporate House,

Shantigram, S G Highway, Ahmedabad- 382421

Page 5 of 5

## YEAR WISE BUDGET ALLOCATION FOR ACTIVITIES UNDER CORPORATE ENVIRONMENT

RESPONSIBILITY OF DAHEJ CEMENT GRINDING UNIT (RS. IN CRORES)

	(RS. IN CRORES)						
Greenfield project estimated investment cost @ is 350 crores							
Sr. No Capital Investment in Cr			Greenfield Project- % of Capital			Total Amount	
			Investment			in C	r
1 100				2.0%		2.0	
2	250			1.5%		3.75	
CER activities (Total Budget for CER = 5.75 Cr)							
SN	CER activities	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Total
1	Infrastructure development for Water: (30%) (1.725 Cr.)  1- Water conservation campaign through workshop program.  2- Rainwater harvesting either by percolation wells or tanks  3- Drinking water supply,  4- Sanitation,  5- Health,  6- Education  7- Skill development,  8- Cross drains,	0.35	0.35	0.35	0.35	0.35	1.73
2	Contribution to various Govt. Schemes: (20%) (1.15 Cr.) 1- Solar lighting in near-by locality. 2-Taking up the cleanliness drive for nearby Areas. 3-Installation of Green energy charging station. 4-Solid waste management facilities,	0.23	0.23	0.23	0.23	0.23	1.15
3	Plantation in Communities Areas (30%) (1.725 Cr.)	0.35	0.35	0.35	0.35	0.35	1.73
4	Scientific Support and Awareness to local Farmers: (15%) (0.86)  1- Awareness in near-by villages farmers to increase yield of crop.  2-Third party audit of CER activities.	0.17	0.17	0.17	0.17	0.17	0.85
5	Contingency Budget (5%) (0.30)	0.06	0.06	0.06	0.06	0.06	0.3
	Total Cost	1.16	1.16	1.16	1.16	1.16	5.76
_							

## **Under CER activity 2024-2025**

### **Background**

Adani Cement Industries Ltd. proposed to install a 1.0 Mtpa cement grinding unit at Dahej.

### **Proposal**

#### A-Infrastructure development for Water: Amount (0.35 Cr.)

- 1- Water conservation campaign through workshop program.
- 2- Rainwater harvesting either by percolation wells or tanks
- 3- Drinking water supply,
- 4- Sanitation,
- 5- Health,
- 6- Education
- 7- Skill development,
- 8- Roads,
- 9- Cross drains,

## B-Contribution to various Govt. Schemes: (0.23 Cr.)

- 1- Solar lighting in nearby locality.
- 2-Taking up the cleanliness drive for nearby Areas.
- 3-Installation of Green energy charging station.
- 4-Solid waste management facilities,

## C-Plantation in Communities Areas: (0.35 Cr.)

### Scientific Support and Awareness to local Farmers: (0.17Cr.)

- 1- Awareness in near-by villages farmers to increase yield of crop.
- 2-Third party audit of CER activities.

## **D-Contingency Budget: (0.06 Cr.)**

Total amount (A+B+C+D) required 2022-23 = (0.35+0.23+0.35+0.17+0.06= 1.16 Cr)

## **Functions for CER implementation:**

- Monitor the overall implementation of the CER activities and the disbursement of the funds.
- ii. Examine the annual targets and activities of proposed CER allocated.
- iii. Review the progress of the targets and activities of proposed CER allocated.
- iv. Prepare the half yearly report for the compliance providing evaluation and documentation of progress made, targets achieved, and performance of the activities carried out.
- v. Ensure that the funds are used only for the prescribed for CER activities.
- vi. ACIL shall release funds annually as per the allocated budget for various CER activities.
- vii. A 3<sup>rd</sup> party annual audit of the CER activities shall be carried out.

CER Implementation Plan of Adani Dahej Cement Industries Limited, Dahej for FY 2024 - 25				
S.N	Activities	Total CER Expenditure planned for FY 24 - 25	Proposed CER Activities	budget for FY 2024-25
1	Education: Project Utthan	13.97	Ankuram play school Renovation @ Lakhigam	3.13
			Adani Evening Education Centre: Tuition classes for Halpati students of Lakhigam, Luvara & Days celebration in schools	10.84
2	Community Health Care and Preventive measures	29,67	Health Activity (Adolecents health awareness program)	15.16
			Preventive measures for dust pollution control (Mist Cannon)	14.51
3	Green Energy Initiative (Contribution to various Govt. Schemes)	11.76	Solar system for health centres @ Dahej, Lakhigam & Ambetha	11.76
4	Vruksh se Vikas: Massive Plantation Drive at Various locations in the Vicinity of Cement plant	47.09	Plantation at various locations of Dahej, Lakhigam & Luvara villages	47.09
5	Infrastructure Development	25.00	Animal Husbandry Centre, Dahej	25.00
6	Baseline Survey	6.00	By Third Party	6.00
7	Administrative Cost	6.67	Manpower support for monitoring & implementation of CER activities	1.35
			Hiring of vehicle for CER activities	5.32
	Total (INR in Lakh)	140.16	1	140.16

Usha Mishra era (fon 17. 2021 (3.35 GMS+3.5)

Proposer

Ms, Usha Mishra

Head CSR - Dahel

Ajay Sharma Ajay Sharma (364 17, 2024 16:25 GHT+5.5)

Approver

Mr. Ajay Sharma

Plant Manager - Dahej

Dinesh Zinesh (Jun 24, 1924 (9:29 (5K1+5.5)

Approver

Mr. Dinesh Kumar Sonthalia Program Management - Finance

Ajay Kapur (Jun 29, 2024 09:59 GM:T+2)

Approver Mr. Ajay Kapoor CEO

Pankti Pankti (17, 2524 11(37 GPT+5.5)

Proposer

Mrs. Pankti Shah

State Head (Gujarat) CSR - AF

Rajiv Jain Rajiv Jain (Jun 21, 2034 11:10 GMT +5.5)

Approver Mr. Rajiv Jain - Chief Manufacturing

Officer

СМО

Sanjay Kurnas Gupta (Jun 25, 2024 56:92 GMT+5.5)

Approver

Mr. Sanjay Kumar Gupta CPO

Approver 04.87 Sh. V.S.Gadhvi ED – AF

Sanjay Prasad Sanjay Process (San 17, 2014 15145 f

Proposer

Mr. Sanjay Prasad

In charge - Environment & Sustainability

Approver

Mr. Sukuru Ramarao

COO - Cement Manufacturing

Vnod Bahety (Jun 28, 2024 18:21 (5:47+5 5)

Approver Mr. Vinod Bahety CFO

Approver

Dr. (Mrs.) Priti G. Adani Chairperson - AF



ATTACHMENT - 2

# **Stand Alone Dahej Grinding Unit**

Compliance to the Standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No. 22-34/2018-IA.III dated 09/08/2018 for Stand-alone Cement grinding units without Captive Power Plant as mentioned at Sr. no. xii

Standard EC Conditions for Cement Grinding Units without Captive Power Plants:			
I.	Statutory compliance		
i.	The project proponent shall obtain forest clearance under provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest propose involved in the project.	Not Applicable  No forest land involved in project area	
ii.	The project proponent shall obtain clearance from the National Board for Wildlife. If applicable.	Not Applicable  (There is no Wildlife Sanctuary or National Park in the proposed project area.)	
iii.	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented tin consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study urea).	Not Applicable	
iv.	The project proponent shall obtain Consent to Establish Operator under the provisions of Air (Prevention Control of Pollution) Act, 1981 and the Water (Perversion & Control of Pollution) Act 1974 from the concerned Suite pollution Control Board Committee.	CTE has been obtained and transferred in the name of Adani Cement Industries Limited (ACIL).  Attachment – 5	



v.	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act 1974 from the concerned Suite pollution Control Board Committee.	CTE has been obtained and transferred in the name of Adani Cement Industries Limited (ACIL).  Attachment – 5
vi.	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.	Noted and Compliance assured
II.	Air quality monitoring and preservation	
I	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide GS.R. No. 612 (E) dated 25 <sup>th</sup> August 2014 (Cement) and subsequent amendment dated 9 <sup>th</sup> May, 2016 (Cement) and concerned to SPCB and CPCB online severs and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Noted and complied.  A continuous monitoring system was installed for monitoring PM concentrations, and the online data is available on GPCB website.  All equipment is installed with pollution control devices to maintain the dust emission well within the limits at bag filter.  Screenshot of online monitoring data is attached as Attachment 11
II	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.	·
III	The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least four locations (One within	CAAQMS has been installed, and real time data is being generated. Also, regular monitoring by independent laboratory recognized by NABL is being carried out and submitted to GPCB and MoEFCC.



	and three outside the plant area at an angle of	Ambient air quality monitoring report is attached
	120° each), covering upwind and downwind direction (case to case basis small plant Manual, Large plants Continuous)	as Attachment - 06
IV	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stock monitoring and manual monitoring of air quality fugitive emissions to regional office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	Monthly Summary report of emission and AAQM data is being monitored and submitted to GPCB and MoEFCC. Attachment 06
	Appropriate Air Pollution Control (APC) system shall be provided or all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	Noted and Complied  Adequate air pollution control system has been provided to control fugitive dust emission at various locations i.e. transfer points, raw material handling, bagging, and packing areas. Etc. All conveyors are covered with GI sheets. Finished products are dispatched by covered wagon or truck to prohibit fugitive emission. List of bag filters are given in <b>Attachment 10</b>
	The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.	Noted and Complied  A leakage bag detector has been installed at VRM bag house.  Mechanized bag cleaning devices have been installed for all bag filters for efficient operations.
	Pollution control system in the cement plant shall be provided as per the CREP guidelines of CPCB.	Compliance to the Corporate Responsibility for Environment Protection (CREP) is enclosed as Attachment 02
	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads shop floors, roof regularly.	Regular water sprinkling on the roads and truck parking area is done being through water tanker.



	Road sweeping machines are being engaged on regular basis for sweeping of all internal roads as part of good housekeeping measures.
Ensure covered transportation and conveying of raw material to prevent species and dust generation; Use closed bulkers for carrying fly ash.	All raw materials are transported by covered vehicle to prevent spillage and dust generation during transportation. The fly ash is transported in enclosed bulkers.
Provide wind shelter fence and chemical spraying on the raw material stock piles, and	Noted and Complied  Covered sheds for storage of raw materials as well as fully covered conveyer for transportation of materials are provided. Cement, fly ash and clinkers are stored in silos. Water spraying arrangements are provided along the roads.
Have separate truck parking area and monitor vehicular emissions at regular intervals.	Noted and complied.  Periodically monitoring the vehicular emission on regular basis has been done.
Efforts shall be made to reduce impact of the transport of the raw materials and end Products on the surrounding environment including agricultural land by the use of covered conveyor belts/ railways as a mode of transport.	Noted and Complied  All the raw materials are transported by covered vehicle to prevent spillage and dust emission during transportation. The fly ash is transported by bulkers.  Other raw materials and finished products are
	transferred by rail. All raw materials are received by rail and in covered trucks.  The final product is dispatched in covered bags through wagon/covered trucks and the chances of product getting mixed with environment is nullified.



	Ventilation system shall be designed for	Noted and Complied
	adequate air changes as per ACGIH document for all tunnels, motor houses cement bagging plants.	The ventilation system for tunnels, packing plants and compressor rooms has been designed and implemented.
	Water quality monitoring and preservation	
i.	The project proponent shall install effluent monitoring system with respect to Standards prescribed in Environment (Protection) Rules 1986 vide G.S.R No. 612 (E) dated 25 August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through lab recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories (case to case basis small plants; Manual: Large plants: Continuous).	Dahej Cement Grinding Unit is a dry process Zero Liquid discharge (ZLD) plant. Water is required during the manufacturing of cement only for cooling of plant machinery and green belt development. Hence the water is completely consumed during the process. As a result, no effluent is generated. In view of this, effluent treatment plant is not required and hence installation of effluent monitoring system is not applicable to the unit.  One STP's with capacity of 10 KLD has been installed at plant. The treated domestic wastewater is used for green belt development and water spraying on road for dust suppression. Water quality monitoring of STP treated water is being done and the monitoring report is being submitted to MoEF&CC with half yearly compliance report.  The copy of the STP water test report is
		attached as Attachment 13
ii.	The project proponent shall monitor regularly ground water quality at least twice a layer (pre and post monsoon) at sufficient numbers of piezometer sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Noted
iii.	The project proponent shall submit monthly summary report of continuous effluent monitoring and result of manual effluent testing and natural monitoring of ground Water quality	Dahej Cement Grinding Unit is dry process Zero Liquid discharge (ZLD) plant. Water is required during the manufacturing of cement only for cooling of plant machinery and green belt development. Hence the water is completely



	to Regional office of MoEF&CC, Zonal office of	consumed during the process. As a result no
	SPCB along with six monthly report.	effluent is generated. In view of this, effluent treatment plant is not required and hence installation of effluent monitoring system is not applicable to the unit.
		One STP's with capacity of 10 KLD has been installed at plant. The treated domestic wastewater is used for green belt development and water spraying on road for dust suppression. Water quality monitoring of STP treated water is being done and the monitoring report is being submitted to MoEF&CC with half yearly compliance report.  The copy of the STP water test report is attached
		as Attachment 06
iv.	Adhere to 'Zero Liquid Discharge'.	Water is required during the manufacturing of cement only for cooling of plant machinery and green belt development. Water is completely consumed during the process and Zero Liquid Discharge is being maintained.
V.	Sewage Treatment Plant stall be provided for treatment of domestic wastewater to meet the prescribed standards.	Noted and Complied  One STP's with capacity of 10 KLD has been installed at plant. The treated domestic wastewater is used for green belt development and water spraying on road for dust suppression.  Photographs of STPs are attached in Attachment - 13
vi.	Garland drains and collection pits shall be provided for each stockpile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface runoff.	Noted and Complied  The raw materials are kept in proper covered storage sheds and as the raw material is kept under covered shed, there is limited chances of run-off in event of heavy rain.
vii.	The project proponent shall practice rainwater harvesting to maximum possible extent.	Noted and Complied  Attachment 14



	Water meters shall be provided at the inlet to	Noted and complied.
viii.	all unit processes in the cement plant	Water meters are installed at all main water withdrawal and consumption points and water consumption is being monitored on a regular basis.
ix.	The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.	The water consumption is being monitored on a regular basis to minimize the water consumption. To minimize the water consumption, the treated wastewater from STP is used for green belt development and water spraying on road for dust suppression.
III.	Noise monitoring and prevention	,
i.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office of the ministry as a part of six-Monthly compliance report.	Noise monitoring is periodically carried out through NABL recognized laboratory. The copy of the noise monitoring report is attached in <b>Attachment 06.</b>
ii.	The ambient noise levels should confirm to the standards prescribed under E(P)A Rules 1986 viz. 75 dB(A) during daytime and 70 dB(A) during nighttime	Noise control measure i.e. acoustic hoods, silencers and enclosures have been provided at all sources of noise generation so that noise levels in and around the plant remain below 75 dB(A) at daytime and 70 dB(A) at nighttime respectively.  The copy of noise monitoring report is attached in Attachment 06
IV.	Energy Conservation measures	
i.	Provide solar power generation on roof tops of buildings, for solar light system for all common	Initiatives towards reduction power consumption have been taken.
L	1	1



	areas, street lights parking around project area and maintain the same regularly.			
ii.	Provide the projects proponent for LED lights in their offices and residential areas.	LED lights have been provided at offices for plant lighting purposes to minimize the energy consumption.		
iii.	Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS Standard.	Dahej Cement GU consumes waste from other industries as raw material for manufacturing of cement. The wastes of other industries being used at Dahej are:  Fly ash from Power plant.  It is always endeavored to ensure that the ecological balance is improved, and the waste of other industries is properly utilized in the cement manufacturing process so as to produce high quality blended cement as per BIS std. For the period April -24 to September-24, Dry Ash - 118302 MT and Wet Ash - 7416.78 MT Fly Ash has been consumed for cement manufacturing.		
V.	Waste management			
i.	The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016	The spent oils, grease and lubricants are collected and sent to the store yard for temporary storage in proper containers and then finally disposed by providing it to authorized recyclers/disposers of Gujarat Pollution Control Board. The annual return of Hazardous Waste will be submitted to GPCB on regular basis.		
ii.	Kitchen waste shall be composed or converted to biogas for further use (to be decided on a case basis depending on type and size of plant).	Noted and complied.  Kitchen waste is compost at site and used a manure in green belt development.		
VI.	Green Belt			
i.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The	Noted and compliance assured.		



	greenbelt shall inter alia cover the entire periphery of the plant.	Plantation is being carried out in a phased manner.  About 1000 trees have been planted during the 1 <sup>st</sup> phase of plantation all along the plant boundary	
		covering about 1 ha. Area.  It is planned to complete 33% of the plant area	
		before the end of the year 2025. Considering the 2 <sup>nd</sup> & 3 <sup>rd</sup> phase of plantation.	
		Photographs of the existing green belt aera are enclosed as <b>Annexure-15</b> for your perusal.	
ii.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programmed for reduction of the same including carbon sequestration including plantation.  Efforts are being taken for reduction House Gases in terms of CO2 by installati lights. The CO2 emissions inventory report generated on a monthly basis.		
VII.	Public hearing and Human health issues		
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Noted and complied.  Emergency preparedness plan, Disaster management plan and HIRA has been prepared and implemented.	
ii.	The PP shall provide Personal Protection Equipment (PPE) as per the norms of the Factory Act.	Noted and complied.  PPE's have been made mandatory for all workers, employees, and visitors, and incorporated in regular practice. PPEs are regularly issued and recorded as per the Factory Act.	
iii.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Not Applicable.  No housing facility is proposed for construction labour within the proposed project area.  However mobile toilets, drinking water facilities are being provided.  Medical health care and crèche facilities are already running by Adani Foundation in a nearby village.	

	Occupational health surveillance or the workers	Occupational health surveillance of the workers			
iv.	shall be done on a regular basis and records maintained as per the Factories Act.	are being done regularly as per the Factories Act and records on Occupational health surveillance programmed is regularly maintained for all the workers and employees associated.			
VIII.	Corporate Environment Responsibility				
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1 May 2018, as applicable. Regarding Corporate Environment Responsibility.	vide F.No.25-65/2017-IA.III dated 01.05.2018 are being complied.			
ii.	The company shall have well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviating/ violation of the environmental/ forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions and or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as part of sixmonthly report.	Adani Cement Industries Ltd. has well defined the Corporate Environmental Policy. As an integral part of our business, a clean and sustainable environment is maintained by continually improving environmental performance. The copy of the Corporate Environment Policy is enclosed in Attachment 12			
iii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Environment cell has been established and working under Head. <b>Attachment – 9</b>			
iv.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by a competent authority. The year-wise funds	Noted and Complied  Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company is in place.			



	earmarked for environmental protection	The detail of the CSR & CER activities along		
	measures shall be kept in separate accounts	expenditure incurred out during the period is given		
	and not to be diverted or for any other purpose.	as Attachment 09		
	Year wise progress of implementation of action			
	plan shall be reported to the Ministry/ Regional			
	Office along with the Six-Monthly Compliance			
	Report.			
	Self-environmental audit shall be conducted	Noted and Compliance assured		
V.	annually. Every three years third party	'		
	environmental audit shall be carried out.			
	All the recommendations made in the Charter	CREP is being implemented.		
	on Corporate Responsibility for Environment	Constitution to the Constitution Brown Hills Co.		
vi.	Protection (CREP) for the cement plants shall be	Compliance to the Corporate Responsibility for		
	implemented.	Environmental Protection (CREP) is enclosed as		
		Attachments 8A		
IX.	Miscellaneous			
	The project proponent shall make public the	Complied		
	environmental clearance granted for their			
	project along with the environmental	• Information to the public regarding EC issued by		
1	project along with the chiralinental			
	conditions and safeguards at their cost by	the SEIAA for this project is published on 14 <sup>th</sup>		
:	1	May 2019 both in "INDIAN EXPRESS" (English)		
i.	conditions and safeguards at their cost by			
i.	conditions and safeguards at their cost by Prominently advertising it at last in two local	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)		
i.	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as		
i.	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)		
i.	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as		
i.	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as Attachment-4		
i.	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.  The copies of the environmental clearance shall	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as		
i.	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as Attachment-4		
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	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.  The copies of the environmental clearance shall he submitted by the project proponents to the Heads of local bodies, Panchayats and	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as Attachment-4		
	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.  The copies of the environmental clearance shall he submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as Attachment-4		
	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.  The copies of the environmental clearance shall he submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as Attachment-4		
	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.  The copies of the environmental clearance shall he submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  Copy of advertisement is enclosed as Attachment-4  Noted and complied.		
ii.	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.  The copies of the environmental clearance shall he submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.  The project proponent shall upload the status of	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  • Copy of advertisement is enclosed as Attachment-4		
	conditions and safeguards at their cost by Prominently advertising it at last in two local newspapers of the District or State, of which one shall he in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.  The copies of the environmental clearance shall he submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	May 2019 both in "INDIAN EXPRESS" (English) and "GUJARAT SAMACHAR" (Gujarati)  Copy of advertisement is enclosed as Attachment-4  Noted and complied.		



	monitored data on their website und update the same on half-yearly basis.	(This compliance report is from April-2024 to September-2024 being submitted by ACIL for Dahej Cement Grinding Unit)
iv.	The project proponent shall monitor the Criteria pollutants level namely: PM10, S0x, NOx (ambient levels as well as stack emission) or critical sectorial parameter indicated for the project and display the same at a convenient location for disclosure to the public and put on the website of the company.	CAAQMS has been installed in the premises. The Opacity Monitor are installed at main stack and the data of CAAQMS and Opacity Monitor is displayed at prominent location.  Digital display board at factory main gate is provided to display the environment data for public domain.  Ambient Air Quality monitoring is being carried out on a regular basis. Monitoring reports for April' 2024 to September' 2024 is enclosed Attachment
V.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest und Climate Change at environment clearance portal.	Noted and Complied  (This compliance report is from April' 2024 to September' 2024 being submitted by ACIL for Dahej Cement Grinding Unit)
vi.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Noted and Compliance assured.  Operation has started from July'2023. Compliance assured from this FY.
vii.	The project proponent 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. Commencing the land development work and start of production operation by the project.	The intimation has been provided to RO-GPCB, Bharuch.
viii.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Noted and Compliance assured.  The guidelines of GPCB are being adhered.



ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitments made during Public Hearing and also that during their presentation to the Export Appraisal Committee.  No further expansion or modifications in the plant shall be carried out without prior approval	Noted and Compliance assured.  Commitments made in the EIA/EMP report are being followed. The detail of EIA/EMP expenditure are attached as <b>Attachment 03</b> Noted and Compliance assured	
	of the Ministry of Environment, Forests and Climate Change (MokF&CC).		
xi.	Concealing factual data or submission of false/fabricated data may result revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted	
xii.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.		
xiii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time-bound manner shall implement these conditions.	Noted	
xiv.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions the project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.	Noted	
xv.	The above conditions shall be enforced, interalia under the provision of the Water (Prevention & Control of Pollution) Act. 1974, the Air (Prevention & Control of Pollution) Act. 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other	Noted	



	orders passed by the Hon'ble Supreme Court of India/ High Courts and any other Court of Law relating to the subject matter.	
xvi.	Any appeal against this EC shall lie with the Notional Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted
	Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes this environment clearance cancelled.	Noted

Verbatims as mentioned in Transfer of Environmental Clearance in the name of Adani cement industries Limited vide letter no. SEIAA/GUJ/EC/3(b)/1752/2022 dated 07.07.2022:

- > The name of the unit read as "Adani cement Industries Limited" in place of "Adani Cementation Limited" in a. Page1. sub Line 1, b. page1. para 2 Line 1, c. page5. issued to Line 1 of Environmental Clearance order no. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/052019.
- ➤ Rest of all the conditions of the Environment Clearance orders no. SEIAA/GUJ/EC/3(b)/633/2019, Dated 03/05/2019 shall remain unchanged.

# Compliance

- Noted and Compliance assured

### POINTWISE RESPONSE TO THE ISSUES RAISED DURING PUBLIC HEARING

The Public consultation for the proposed Dahej Cement Grinding Plant (DCGP) of 2.0 MMTPA Capacity, was conducted on 07/12/2018 at 11:00 Hrs by Gujarat State Pollution Control Board at Project site of Dahej Cement Grinding Plant at Dahej, Taluka Vagra, District Bharuch (Gujarat).

Public hearing was chaired by Hon. **J.P. Asari (G.A.S.)**, Additional District Collector & Additional District Magistrate and Chairman of the Public Hearing Committee, district Bharuch and assisted by Mr. **R.R. Vyas**, Regional Officer, GPCB, Bharuch & representative of Gujarat Pollution Control Board (GPCB).

Total **225** persons signed on the attendance sheet; out of which **29** persons raised verbal issues while **71** nos. written issues/suggestions/objections/opinion has been raised before as well as during public hearing.

### **RESPONSE BY PROJECT ISSUES RAISED BY PUBLIC** PROPONENT WITH ACTION PLAN Shri Jaydeepsinh Ramsinh Rana (Sarpanch <u>Village: Dahej, Taluka : Vagara, District:</u> Bharuch):-• As the Sarpanch of the village and a fellow villager we welcome the project of Adani Cementation Limited. We appreciate the various We thank the representator and activities carried out under CSR by Adani assure them that the relevant work Company like education, RO facility for drinking will be carried out accordingly. water. Company has also assured to aid us with collection of rain water in the pond. We request them to work in that direction. We also request the company to provide Job to the land losers and keep the issue of local employment on priority. Part of land allotted to company gets utilized as RoU. We have requested the GIDC and The Collector to come Shri Ishwarbhai Melabhai Gohil Village: up with a policy. Once the rules of Lakhigam, Taluka: Vagra, District: Bharuch):the policy get decided we will be able • The project is welcomed. My survey no. is 118, to take steps to solve the problems GIDC has given me the land looser form but my of the land loser and till the policy son in spite of being educated has not been has not been decided the issues provided a job by the company. Also plot has not faced by the land loser will be solved been allotted to me. indirectly. Vacant my land or give a job to my son. In similar Once policy will be decided, company case others are getting job. will act accordingly. No such case of • I supply labour, I have not been offered work land loosers has been received for order, which is injustice to me. this particular project. If such case • My son has studied MSW but still company is not will be received, prompt response will giving the job. be given. • He will be given priority whenever

there is a vacancy for MSW post.

• Remarks: - GIDC representative has informed that list of survey numbers are also been given when plot is allotted by GIDC. Issue of ROU land i.e. land having pipeline, railway, road; has been raised with higher authority at Gandhinagar level. This issue is pending till date. Once policy will be decided at Gandhinagar level, then only decision can be made in such cases. Issue of land loosers is raised at higher level whose land having pipeline, railway, road in it.

# Shri Bhurabhai Shivabhai Gohil, Village: Lakhigam, Taluka: Vagra, District: Bharuch

I have filled the land loser form and submitted along with the map to the company since 2014 but have not received satisfactory answer till date. This case is similar to the case discussed previously. As suggested, till a specific policy is not enacted we will try to provide indirect help.

# <u>Shri Rakshit Makwana Village: Lakhigam, Taluka:</u> <u>Vagra, District: Bharuch</u>

- Why issues of land losers whose land has been allotted for the coal silo and railway track haven't been resolved since last 18 years? My land survey no. is 142. There are about 40 land losers like me whose issues are not resolved yet.
- Land for sport ground should be allotted.

### Remarks:-

The representative from GIDC has informed that the applications were made 18 years ago. It was discussed in earlier meeting that all the nearby companies would take the social responsibility and make efforts to solve the land loosers issues but consensus has not arrived then after. The chairman has asked to list down the names of the land losers having similar issue and requested the GIDC to inform the collector and arrange for a meeting and suggested that this issue should also be raised in Jilla Sankalan Meeting. GIDC representative has informed that this suggestion will be forwarded

# Shri Gohil IshwarBhai NarsinhBhai Village: Lakhigam, Taluka: Vagra, District: Bharuch

- Company should be behave politely to the local residents when they visit company's office. A person like Bhagwanbhai master has died & his land is also acquired. Companies like RIL, GCPTCL, Adani etc give assurance for job but they don't actually offer.
- Even though there are educated students still they are not given the job. Education should be provided to the uneducated and training to the untrained people and also provide with the job so that they can start their livelihood.

to head office.

# <u>Shri. Bhavesh Gohil Village: Lakhigam, Taluka: Vagra, District: Bharuch</u>

- How many land loosers and local villagers have been given jobs in the projects earlier established by Adani Company?
- According to the earlier EIA report it is stated that the measures will be taken to control air pollution caused due to conveyor belt. Provide details. As stated earlier the coal will be brought in the ratio of 60:40, but it seems that this ratio of coal and water is not maintained, Is the coal brought in the ratio of 60:40?
- Whether these teams are coming to villages?
- It is well known fact that there is problem of dusting in our village. If your vehicles would have been cleaned then roads would not have been in such bad conditions.
- In the situation accident/ mishap what should be done? How should be inform?

At present, the Adani Company is providing job to 25 local villager of Lakhigam; out of which 10 are land losers. Also 75 villagers of Lakhigam are provided employment indirectly. Provisions have been made to prevent dust emission from the belt conveyor;

Provisions have been made to prevent dust emission from the belt conveyor; Step has been taken to prevent the coal dusting like installation of hopper installation jetty, suppression system, covering of the conveyor belt, installation of wind shield. The wind shield is 1.5 to 2 m. taller than the coal storage. Sprinkling of water is done manually. For the continuous sweeping of the road, two mounted trucks and one mounted tractor are functional. Total 5 teams (each team comprises of 6 persons) are involved in this activity. Truck tyres are washed. Increase in the green belt as much as possible and time to time monitoring will be conducted. Currently AAQM station near GCPTL is in function. Further suggestions are also welcomed.

Let us know about the help is needed and team will definitely come and act accordingly.

The air pollution in this area may not be solely of Adani Company. Air quality monitoring is carried at six different places by us. One of such station is situated near Lakhigam.

During any such incidents, you may inform Bhavesh Bhai. He is the responsible person of the company. We assure that prompt actions will be taken in such cases.

# Shri Lakshman Sinh Gohil, Village Lakhigam, Taluka: Vagra, District: Bharuch

• We appreciate that Adani Company has done some good works in our village. Ours is big village. Earlier if any function was to be organized, there was only one temple available. We used to face lot of problems when three or functions were to be organized simultaneously. Adani Company helped by building community hall of capacity of 1000 persons. Moreover, facilities such as medical checkup, mobile clinic are provided by company. It is our request that there should be improvement in medical facility. Permanent

Steps will be taken positively as per suggestions given related to health.

ambulance, doctor and land for this purpose should be allotted with coordination of Panchayat.

# • <u>Shri Aahir Jayantibhai (Sarpanch) Village:</u> <u>Luvara, Taluka: Vagra District: Bharuch</u>

• Since last 10 years the company who visited the village most is Adani and also they focused on every individual's development. I whole heartedly welcome the company. In my village the company has granted 58 houses out of which 22 have been built. Also the facilities of school and hospitals are provided. I would like to share the feeling that we just need a good environment to live in.

The company is thankful for your response and necessary steps would be taken as suggested by you.

# Vilasben B Patel, Sarpanch, Village Jageshwar, Taluka: Vagara, District: Bharuch.

Houses have been built for us by the company.
 Rooms have also been constructed in Primary School Teacher has also been appointed.
 Programmes have also been launched for the Kids suffering from Kuposhan. C.C.T.V Cameras has also been installed at High School. Some more development is also expected by the village and also we welcome the upcoming project.

 This is our social responsibility and we would continue doing such activities in future too.

# Shri Jayendrasinh Rana, Village: Dahej, Taluka: Vagra, District: Bharuch

- How would company provide the employment to the local residents? What is the definition of locals? How are we going to be considered as locals or as affected?
- As per law 85% local employment to be given to local people. In Dahej facilities like R.O, Bus station has been provided and for that we are grateful to the company. We request that Dahej should also be provided with the ambulance.
- If the company does violate the terms of E.I.A then to whom the complain should be registered?
- For CSR fund by whole to inform?
- In the railway corridor the land has been surrendered which is now used by adani thane who would solve the questions regarding the land losers?
- From where we will get the C.D for the public hearing.

- We would think for the suggestion to provide the ambulance.
- Thanks. As per the Adani Company's procedure, it is reported that after contacting the people of the village, after considering the discussion from head office as per the village requirements, the annual budget will be implemented.
- We have discussed this earlier.
- Remarks:-
- Chairman stated that those who have lost the land are considered to be the land looser and all such should be provided with the job. People residing in Bharuch district are considered to be local.
- Regional officer has informed that as per the notification of central government EIA report should be approved by authorized organization and the structure for same is also decided. After the EIA report is made and Environmental Clearance is obtained after which the compliance verification is done, if the permission is obtained by MoEF then the verification would be done by the

same department and if at the state environmental clearance is level obtained from SEAC then state level forest and environment department shall process for EC condition verification. Recently it is decided that state pollution control board can also monitor the compliance of E.C conditions and if the EIA norms are violated then you can inform the board. • The Regional officer stated that the details of Public Hearing is available on the website. • Shri Aahir Rahulkumar Lakshmanbhai Village:luvara, Taluka: Vagara, Dist: Bharuch Expressing gratitude, the modern technology will be set up in the • 75% of the progress of Lakhigam Village is due to company. And the work related to Adani and still we expect the company to the development of the village will be continue the same in future along with that we welcome the upcoming project. The company will increased gradually. take action to prevent pollution. • Thank you so much. If we have the opportunities for employment, we Manharbhai makwana – majiSarpanch, will give information and prefer to be Village: Lakhigam, Taluka: Vagara, Dist: Bharuch employed in the employment. • I welcome the Adani Cementation Plant. We do • The incident which occurred in 2012 not oppose if people are getting employment. was unfortunate. It is a legal matter • An incident took place in 2012 in Lakhigam, for now but we show affirmation for the which 75 number of people still have to go to the same. And after 2012 the court frequently. We asked for the settlement of relationship between company and the same because people have to go to the court village has improved. The company leaving their jobs daily. They are poor people. We guarantees positive attitude. request Adani for coming up with the solutions • The company has built a bus stand in for the guiltless people and we have no problem the village and regarding the safety in that. And take care for the greenbelt also. for students, we will along with the Steps should be taken for the students of primary people of the village, will work school walking to the school from Navinagri. towards it to provide safe route for the students to go to school. Shri NareshGohil, Vill: Lakhigam, Taluka: Vagara, • The raw material is clinker which is Dist: Bharuch brought via trucks. We have analyzed • Is the raw material brought via sea route or via the noise in 16 places. Apart from truck? Will the conveyer shut down at night or this, surveys will be done at different keep functioning? It is difficult to sleep at night. places in the village. Noise pollution occurred during night hous. • Remarks:- GIDC representative said Ask to GIDC that will GIDC give its return if the that while the plot is allotted to land is gone in silo. We gave land 18 years ago GIDC, a list of company landlords is given. Shri Narendrasinh Rana, Vill: Dahej, Taluka: Vagara, Dist: Bharuch Who will get jobs for landlords who have landed

in a channel or road. GIDC urges that this question be taken seriously and will not be

	1
resolved in future, otherwise the movement will	
be held in the future. Adani has done good work	
in the villages. Request to do good works in	
Dahej.	
Shri Shravan Shankarbhai Rathod Navinagri,	
Village:Lakhigam, Taluka: Vagara	
District: Bharuch	•
•The company has been made buildings, temples	
and water tanks, give net for Fisheries business	
in our village. Thanks to the company for this.	
Shri Naresh. D. Gohil, Village:Lakhigam Taluka:	
<u>Vagara, District: Bharuch</u>	
•I would like to support for the issue of Land	• We welcome your suggestions.
loosers. Company has distributed helmets	Getting the direction from GIDC and
thinking for road safety, the rest who are left out	their agreement the steps in the
will be provided with the helmets is expected	direction of tree plantation would be
from the company. The open land near the	taken into consideration, also for the
conveyor belt should be filled with tree	rest of the suggestions locals will be
plantation so that dusting can be reduced and	contacted and necessary steps
the maintenance for the same should be done till	would be taken.
its full growth. We expect that lakes of lakhigam	Woold be taken.
should be developed by the company.	
Shri ParmarKrupali, Vill: Jolva,Ta.: Vagra	
<u>Dist: Bharuch</u>	
• Today where ladies and youngsters in industrial	•
areas are educated and are unemployed, this	
company has given us the employment.	
Shri Sureshbhai Patel, Vill: Luvara, Tal: Vagra,	
<u>Dist: Bharuch</u>	
•Today, 25% of the people in luvara village are	
involved in the animal husbandry. Company takes	• The company will give the priority to
care of the medical services for the same which	the local people for the employment.
is very helpful. We request that the villagers of	
luvara also get employment.	
	•The land for Adani power, dahej was
Shri Badalbhai karsanbhai gohil Vill: Suva,Ta.	obtained from Suva village. But
Vagra, Dist: Bharuch	because of many reasons, the project
<u> </u>	is unable to carry forward. In future,
• In the year 2008-2009, the village has increased	according to the progress of the
its area from 800 acres to 900 acres. For that,	industry, villagers who have lost their
what has the company inquired about?	land will be employed.
• The work should be done under the CSR and	• Company currently works on the CSR
	activities in Suva village. Also, after
survey should be done in the Suva village.	suitable suggestions, steps will also
	be taken for providing houses.
Shri Bhailalbhaigohil, Vill: Lakhigam	• In the company, when a large number
Ta: Vagra, Dist: Bharuch	of employees are required, it is
• Advertisement for the Recruitment for the	reported through the newspaper. The
company should be given in the local newspaper.	campus interview is also held when
For the employment recruitment, campus	there is a large need.

<ul> <li>Answer Regarding Safety is mentioned above</li> </ul>
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# THEINDIAN EXPRESS, TUESDAY, MAY 14, 2019 GUJARAT away numical I made for the Aradica and I made for

Information to the public regarding EC issued by the SEIAA for this project is published on 14th May 2019 in "INDIAN EXPRESS", Ahmedabad Edition (English)

### Public Information

State Level Environment Impact Assessment Authority (SEIAA), Gujarat, has granted Environmental Clearance (EC) for Stand Alone Cement Grinding Unit, Capacity 2.0 MMTPA of Adani Cementation Limited at Survey No: 136/P, 137/P, 138/P, 139/P, 140/P, 141/P, 144/P, 145/P, 151/P, 152/P, 153/P, 154/P, 155/P, 162/P, 174/P, 175/P, 176/P, 178/P, 179/P, 187/P, 188/P, 189/P, 190/P, 191/P, Village: Dahej and Survey No. 125/P, 124/P of Village Lakhigam, Dahej Industrial Estate, Taluka: Vagra, District: Bharuch (Gujarat).

Salient features of the project are as under for the public information.

- Reference: Letter no SEIAA/GUJ/EC/3(b)/633/2019 dated
   03.05.2019 of SEIAA, Gujarat
- Technology: Vertical Roller Mill / Roller Press Technology have been proposed for grinding.
- Raw Material: Clinker, Fly ash, Gypsum and Slag will be used for Cement manufacturing.
- Water: Fresh water requirement for the proposed project is 300KLD and will be provided by GIDC.
- Cement: PPC, PSC, OPC 8 PCC will be produced in the proposed project.
- Compilance: Compilance of EC conditions as per Environment (Protection) Act, 1986, Rules and MoEFECC Notifications issued time to time will be done. The project proponent will submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to SEIAA, Gujarat.
- Capital Cost: Total estimated project cost is Rs. 556.26
   Crores. Budget proposed for Environmental Protection Measures is estimated as Rs. 14.8 Crores (Capital) and Rs. 1.32 Crores (Annual). Budget proposed for implementation of CSR 8 CER activities is as Rs. 665 Lac 8 Rs. 275 Lac respectively.

As per Other Conditions number '67' of Environmental Clearance, copies of clearance letter is available with the Gujarat Pollution Control Board and may also be seen at the Website of SEIAA/SEAC/GPCB at www.seiaa.gujarat.gov.in

Authorised Signatory Adani Cementation Limited મંગળવાર, તા. ૧૪ મે, ૨૦૧૯

# गुपरात रामामर (वडोहरा आवृत्ति) १५

# તાલુક માહિવી

સ્ટેટ લેવલ એન્વાયનમિન્ટ ઇપેક્ટ એસેસમેન્ટ ઓશીરિટી (એસ.ઇ. આઇ. એ.એ.), ગુજરાત લારા અદાણી સિમેન્ટેશન લિમિટેકની સ્ટેન્ડ અલોન કિમેન્ટ ગાઇન્ડિંગ પ્લાન્ટ માટે એન્વાયનમિન્ટ ક્લિયરન્સ (ઇ.સી) આપવામાં આવ્યું છે જેની ક્ષમતા ૨.૦ એમ. એમ.ટી.પી.એ. છે. સર્વેનં. 135/P, 137/P, 138/P, 139/P, 140/P, 141/P, 144/P, 145/P, 151/P, 152/P, 153/P, 154/P, 155/P, 162/P, 174/P, 175/P, 176/P, 178/P, 179/P, 187/P, 188/P, 189/P, 190/P, 191/P, 118/P, 188/P, 189/P, 190/P, 191/P, 118/P, 188/P, 189/P, 190/P, 191/P, 118/P, 188/P, 189/P, 192/P, 188/P, 189/P, 192/P, 188/P, 189/P, 193/P, 193/P, 188/P, 189/P, 188/P, 189/P, 193/P, 188/P, 188/P, 189/P, 193/P, 188/P, 188

પ્રોજેક્ટની મુખ્ય લાક્ષણિકતાઓની માહિતી આમ જનતાની બાયકારી માટે નીચે મુજબ છે:

- **સંદર્ભ** એસ.ઇ.આઇ.એ.એ., ગુજરાતના પત્ર SEIAA/GUJ/EC/ 3(બી)/633/2019 તારોખ 03.04.૨૦૧૯
- **ટેકનોલોજી:** વર્ટિકલ રોલર મીલ / રોલર પ્રેસ ટેકનોલોજી માધ્યમ દ્વારા ગ્રાઇન્ડીંગ કરવા માટે પ્રસ્તાવિત છે.
- કાર્યો માલ: ક્લિંકર, રાખ, ઝારામ અને રલેગનો ઉપયોગ સિમેન્ટ ઉત્પાદન માટે કરવામાં આવશે.
- પાથી: સૂચિત પ્રોપેક્ટ માટે પાણીની વરૂરિયાત ૩૦૦ કિલો લિટર પ્રતી, દિવસ છે, અને તે જી આઇ.ડી.સી. હારા પૂરું પાડવામાં આવશે.
- Rahes: પ્રસ્તાવિત પ્રોજેક્ટમાં પી.પી.સી., પી.એસ.સી., ઓ.પી.સી. અને પી.સી.સી.પ્રકારની સિમેન્ટ બનાવવામાં આવશે.
- અનુપાલન: પર્ચાવરણ (સંરક્ષછ) કાયદો, ૧૯૮૬ અને એમ.ઓ.ઇ.એફ અને સી.સી શરતો અનુસાર ઇ.સી. શરતોનું પાલન કરવામાં આવશે.
   પ્રોપેક્ટ પ્રસ્તાવકર્તા, ગુજરાત માટે પર્ચાવરણીય સલામતીના અમલીકરણની સ્થિતિ પર છ માસિક પાલન અહેવાલ બ્રુઇંછછ ને રજૂ કરશે.
- મૂકી ખર્ચ: કુલ અનુમાનિત પ્રોલેક્ટ ખર્ચ રૂ. ૫૫૬.૨૬ કરોડ છે. પર્યાવરણીય સુરક્ષા ૫ગલાં હેતુ આશરે રૂા. ૧૪.૮ કરોડ (મૂકી) અને રૂા. ૧.૩૨ કરોડ (વાર્ષિક)નું પ્રોલેક્ટ બલેટમાં પ્રાવધાન કરવામાં આવેલ છે. સીએસઆર અને સીઇઆર પ્રદૃત્તિઓના અમલીકરણ માટે અનુક્રમે બલેટ રૂા. ૬૬૫ લાખ, રૂા. રૂ૭૫ લાખનું પ્રાવધાન કરવામાં આવેલ છે. એન્વાયનિમેન્ટ ક્લિયરન્શની અન્ય શરતો સંખ્યા 'દુર', ક્લિયરન્સ લેટરની નકલો ગલરાત પ્રદયક્ષ નિયંબણ બોર્ડ સાથે ઉપલબ્ધ છે જે SEIAA

એન્વાચર્ગમેન્ટ ક્લિચરન્સની અન્ય શરતો સંપથા 'દ્ક', ક્લિચરન્સ લેટરની નકલો ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ સાથે ઉપલબ્ધ છે જે SEIAA / SEAC/GPCB ની વેબસાઈટ Www.seiaa.gujarat.gov.in પર પણ બોર્ડ શકાય છે.

> અધિકૃત હસ્તાક્ષર અદાવી સિમેન્ટેશન લિમિટેડ

Information to the public regarding EC issued by the SEIAA for this project is published on 14<sup>th</sup> May 2019 in "GUJARAT SAMACHAR", Vadodara Edition (Gujarati)

# **GUJARAT POLLUTION CONTROL BOARD**



PARYAVARAN BHAVAN, SECTOR 10-A, GANDHINAGAR - 382010, (T) 079-23232152

By R.P.A.D.

# CONSOLIDATED CONSENT AND AUTHORIZATION(CC & A - Amendment) <u>CCA- AMENDMENT NO: AH - 132496</u>

NO: GPCB/BRCH/CCA- 1671/ID-82422/

DT: /03/2024

To.

M/s. Adani Cement Industries Ltd.

Plot No. 136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P

✓of Village: Dahej in Dahej Industrial Estate,

Tal: Vagra, Dist: Bharuch.

SUB: Amendment in Consolidated Consent & Authorization (CC&A) under various

Environmental Acts/Rules.

REF: (1) Your application No. 292013 dated 06/12/2023.

(2) EC to CTE No.68492dated:02/03/2024

(3) CCA No. AWH - 126677 dated: 22/06/2023 (CCA-Fresh)

This has reference to the CCA order No: AWH-126677, issued vide letter no. GPCB/BRCH/ CCA-1671/ID-82422/745621 dated 22/06/2023 under the provisions of the various Environmental Act/ Rules, which stands amended as under.

### The Validity of this order will be up to 09/03/2028.

- The list of proposed products to be manufactured shall be as follows:
  - There shall be no change in Products and its production quantity.

### 2. Specific conditions:

- a) Unit shall comply with all conditions of EC dated 03/05/2019 and 02/11/2023.
- b) Unit shall strictly comply with submitted notarized undertaking dated 20/01/2024 in letter and spirit.
- c) Unit shall strictly follow the Solid Fuel guideline framed by Board and shall install APCM as per guideline.
- d) Unit shall follow coal handling guideline framed by Board and provide close ash handling facility.
- e) Unit shall strictly follow the Fly Ash Notification for disposal of generated ash.
- f) Unit shall install online Continuous Emission Monitoring Systems (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacity or equivalent capacity of TFH.
- g) Unit shall strictly comply with guidelines of CPCB for Co-processing of Hazardous and Other Waste in Cement Plant as per H & OW (M & TBM) Rules, 2016.

### 3. CONDITION UNDER THE WATER ACT:

3.1 There shall be no change in water consumption, wastewater generation and mode of disposal.

Page 1 of 4

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### CONDITIONS UNDER THE AIR ACT: 4.

The condition No. 4.1for Fuel Consumption under Air Act of the CCA order No: AWH-4.1 126677, issued vide letter no. GPCB/BRCH/ CCA-1671/ID-82422/745621 dated 22/06/2023 is amended and shall now be read as under.

Sr.		Quantity			
No.	Name of fuel	Existing	Proposed	Total	
1	Diesel	600 Lit/Year		j	
2	LNG		5 KLD	5 KLD	
3	Bio Diesel				
4	Coal		100 MT/Day	100 MT/Day	

The condition No. 4.2 for Flue gas stacks under Air Act of the CCA order No: AWH-4.2 126677, issued vide letter no. GPCB/BRCH/ CCA-1671/ID-82422/745621 dated

22/06/2023 is amended and shall now be read as under.

Stack No.	Stack attached to	StackHeight	Air Pollution Control Measure (APCM)	Parameter	Permissible limit
Existin	ng				
1	D.G. Set (Cap: 500 KVA)	18 m	<b></b>	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
Propos	sed			<u>,</u>	<u></u>
1	Hot Air Generator (Cap: 100 Lac Kcal/Hr)	70 m	Pulse Jet Type Bag House	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/Nm³ 100 ppm 50 ppm

The condition No. 4.3 for Process gas stacks under Air Act of the CCA order No: AWH-4.3 126677, issued vide letter no. GPCB/BRCH/ CCA-1671/ID-82422/745621 dated

22/06/2023 is amended and shall now be read as under.

Stack No.	Stack attached to	Stack Height	Air Pollution Control Measure (APCM)	Parameter	Permissible limit
1	Packing Plant (1 No.) <b>(Existing)</b>	50 m	Bag Filter		
2	All Conveyor belts and transfer points (6 Nos.)(Existing)	30 m	Bag Filter	PM SO <sub>2</sub>	150 mg/Nm³ 40 mg/Nm³
13	All Raw material (1 No.) and finished product silos (2 Nos.)(Existing)	30 m	Bag Filter	NO <sub>X</sub>	25 mg/Nm³

# **GUJARAT POLLUTION CONTROL BOARD**



PARYAVARAN BHAVAN, SECTOR 10-A, GANDHINAGAR - 382010, (T) 079-23232152

4	Cement Mill (1 No.)(Existing)		Bag Filter		
1	Hot Air Generator (Proposed)	70 m	Pulse Jet Type Bag House	PM SO <sub>2</sub> NO <sub>X</sub>	150 mg/Nm <sup>3</sup> 40 mg/Nm <sup>3</sup> 25 mg/Nm <sup>3</sup>

4.4 The concentration of the following parameters in the ambient air within the premises of

the industry shall not exceed the limits specified hereunder.

Sr. No.	Parameters	Permissible Limit (microgram /m³)			
51. NU.	Farameters	Annual	24 Hours Average		
1.	Particulate Matter (PM <sub>10</sub> )	60	100		
2.	Particulate Matter (PM <sub>2.5</sub> )	40	60		
3.	Sulphur Dioxide (SO2)	50	80		
4.	Nitrogen Dioxide (NO <sub>2</sub> )	40	80		

- Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
- 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.
- 4.5 Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition as above.
- 5 CONDITIONS UNDER HAZARDOUS & OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016
- 5.1 Unit shall comply with provisions of Hazardous & Other Wastes (Management & Transboundary Movement) Rules-2016.
- 5.2 The condition No. 6.2 under authorization for Hazardous & other wastes of the CCA order No: AWH-126677, issued vide letter no. GPCB/BRCH/ CCA-1671/ID-82422/745621 dated 22/06/2023 is amended and shall now be read as under.

Sr.	Name of	Category	Quantity in MT/Year			Facility
No.	Haz. Waste	Number	Exi.	Pro.	Total	1
1	Used Oil	5.1	0.1	<b></b>	0.1	Collection, Storage and Reuse or Transportation and sendto Registered Recycler/ Refiner.
2	Cotton Rags	33.2	0.3		0.3	Collection, Storage, Transportation and send to CHWIF.
3	Discarded Containers	33.1	1000 Nos./Year		1000 Nos./Year	Collection, Storage, Detoxification/ Decontamination, Reuse OR Transportation and send to authorized Decontamination facility.

Page 3 of 4

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		4 Gypsum	35.3, 26.1, 38.1,	0.3 MMT/Year	0.3 MMT/Year	Transportation and utilize for Cementmanufacturing as per CPCB guidelines for co-processing of
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6 All other conditions of the CCA order No: AWH-126677, issued vide letter πο. GPCB/BRCH/ CCA-1671/ID-82422/745621 dated 22/06/2023 shall remain unchanged.

For and on behalf of GUJARAT POLLUTION CONTROL BOARD

(M. R. Macwana) UNIT HEAD-BHARUCH

A 40° 18673212M 031202M

# **GUJARAT POLLUTION CONTROL BOARD**



PARYAVARAN BHAVAN, SECTOR 10-A, GANDHINAGAR - 382010, (T) 079-23232152

By R.P.A.D.

# CCA NO: AWH-126677

### NO: GPCB/BRCH/CCA-1671/ID-82422/

DT: /06/2023

In exercise of the power conferred under Section-25 of the Water (Prevention and Control of Pollution) Act-1974, under Section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986.

And whereas Board has received consolidated application dated 10/03/2023 and inward no. 274154 for the consolidated consent and authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts, Consolidated Consent & Authorization is hereby granted as under.

### CONSOLIDATED CONSENT AND AUTHORISATION:

(Under the provisions / rules of the aforesaid Environmental Acts)

To,

M/s. Adani Cement Industries Limited,

Plot No: 136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

village: Dahej in Dahej Industrial Estate.

Ta. Vagra, Dist. Bharuch.

1. Consent Order No.: AWH-126677 date of Issue 01/06/2023.

2. The consent under Water Act -1974, Air Act - 1981 and Authorization under Environment (Protection) Act, 1986 shall be valid up to 09/03/2028 to operate industrial plant to manufacture following products:

Sr. No.	Products	Quantity
1	Portland Pozzolana Cement (PPC)	
2	Ordinary Portland Cement (OPC)	4.0510.455
3	Portland Slag Cement (PSC)	1.25 MMTPA
4	Portland Composite Cement (PCC)	

### SPECIFIC CONDITIONS:

- a) Unit shall not use Hot Air Generator (HAG) without obtaining amendment in EC and CTE & CCA as per submitted assurance letter vide dated 11/05/2023.
- b) Unit shall provide OCEMS as per CPCB's guidelines/directions.
- c) Unit shall comply all the conditions of EC dated 03/05/2019 and EC Amendment (EC transfer/name change) dated 07/07/2022.
- d) Unit shall maintain ZLD.

Page 1 of 6

Clean Gujarat Green Gujarat

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- e) Unit shall not carry out any construction activities and production which attracts provisions of Environment Clearance without obtaining EC from competent authority under EIA notification dated 14/09/2006 and amended thereafter.
- f) All the efforts shall be made to send hazardous waste to Co- processing/Pre-processing facility first & there after it shall be disposed through other options.
- g) Unit shall comply environmental guidelines for prevention and control of Fugitive Emissions from Cement Plants published by CPCB.

### CONDITION UNDER THE WATER ACT: 3.

The quantity of total water consumption shall not exceed 193 KLD as per below 3.1 break up:

Domestic: 10 KLD a) Industrial: 174 KLD b) Gardening: 9 KLD c)

The quantity of total waste water generation shall not exceed 13 KLD as per below 3.2 break up:

Domestic: 9 KLD a) Industrial: 4 KLD b)

- Mode of disposal of wastewater: 3.3
  - a) 4 KLD industrial wastewater generated from cooling tower shall be neutralized and used for dust suppression within premises. Hence, unit shall maintain ZLD.

b) Domestic wastewater 9 KLD shall be treated in STP. After conforming following standards, treated domestic wastewater shall be reused for gardening/plantation

ourpose within premises.  Parameters	Norms
pH	6.5 to 9
TSS	< 100 mg/l
Fecal Coliform ( Most Probable Number	<1000 MPN/100ml
per 100 milliliter, MPN/100ml)	
BOD (3 days 27 degree C)	<30 mg/l

- Unit shall affix of water meters for the purpose of measuring and recording the 3.4 quantity of water consumed at such places as may be required, within 15 days and it shall be presumed that the quantity indicated by the meter has been consumed by the unit until the contrary is proved.
- The GIDC drainage connection given by the GIDC for discharge of industrial effluent 3.5 shall be disconnected & the outlet shall be sealed.
- Leachate from the hazardous solid waste, if any shall also be connected into a 3.6 collection tank through leachate collection facilities and shall be treated along with industrial effluent.
- The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environment safeguards and other conditions stipulated by

# **GUJARAT POLLUTION CONTROL BOARD**



PARYAVARAN BHAVAN, SECTOR 10-A, GANDHINAGAR - 382010, (T) 079-23232152

statutory authorities. The Environmental Management Cell / Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issued. These Cells also coordinate the exercise of environmental audit and preparation of environmental statements.

- 3.8 The Environmental audit shall be carryout yearly, if applicable. The environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.
- 3.9 The Board reserves the right to review and/or revoke the consent and / or make modifications in the conditions which it seems fit in accordance with provisions of Water Act-1974.

### 4. CONDITIONS UNDER THE AIR ACT:

4.1 The following shall be used as fuel:

Sr. No	Name of fuel	Quantity
1.	Diesel	600 Lit/Year

4.2 The flue gas emission through stack shall conform to the following standards:

Stack No.	Stack attached to	Stack Height	АРСМ	Parameter	Permissible limit
	DC C-+			PM	150 mg/Nm <sup>3</sup>
1	DG Set	18 m		SO <sub>2</sub>	100 ppm
	(500 KVA)			NO <sub>x</sub>	50 ppm

4.3 The Process emission through various stacks/ vent of reactors, process, vessel shall conform to the following standards:

Stack No.	Stack attached to	Stack Height	APCM	Parameter	Permissible limit_
1	Cement Mill (1No.)	70 m	Bag Filter		
2	Packing Plant (1No.)	50 m	Bag Filter		
3	All Conveyor belts and transfer points (6Nos.)	30 m	Bag Filter	PM SO <sub>2</sub> NO <sub>x</sub>	150 mg/Nm <sup>3</sup> 100 ppm 50 ppm
4	All raw materials(1No.) and finished products Silos(2Nos.)	30 m	Bag Filter		



Page 3 of 6

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4.4 The concentration of the following parameters in the ambient air within the premises of the unit shall not exceed the limits specified hereunder.

Sr.		Permissible L	Permissible Limit (microgram /m³)			
No.	Parameters	Annual	24 Hours Average			
1.	Particulate Matter (PM <sub>10</sub> )	60	100			
2.	Particulate Matter (PM <sub>2.5</sub> )	40	60			
3.	Oxides of Sulphur (SO <sub>x</sub> )	50	80			
	Ovides of Nitrogen (NO <sub>x</sub> )	40	80			

- Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
- 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.
- 4.5 Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified as above.
- 4.6 The consent to operate the industrial plant shall lapse if at any time the parameters of the gaseous emission are not within the tolerance limits specified as above.
- 4.7 Unit shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- Unit shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
- 4.9 All efforts shall be made to control VOC emissions and odor problem, if any.

### 5 GENERAL CONDITIONS: -

- 5.1 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also any change in equipment or working conditions as mentioned in the consents form/ order should immediately be intimated to this Board.
- 5.2 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 5 meters width is developed.
- 5.3 Unit shall put up at the entrance a board displaying the name of unit, particulars of the products/ process and the name of proprietor/partners /directors of the unit and the electricity consumer number as on the record.

# GUJARAT POLLUTION CONTROL BOARD



PARYAVARAN BHAVAN, SECTOR 10-A, GANDHINAGAR - 382010, (T) 079-23232152

- 6. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 6(2)).
- 6.1 Number of authorization: AWH-126677 date of Issue 01/06/2023.
- 6.2 M/s. Adani Cement Industries Limited is hereby granted an authorization to Operate facility for following hazardous wastes on the premises situated at Plot No: 136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of village: Dahej in Dahej Industrial Estate, Ta. Vagra, Dist. Bharuch.

Sr. No.	Name of Haz. Waste	Category No.	Quantity	Facility and Final Disposal
1	Used Oil	5.1	0.1 MTPA	Collection, Storage and Reuse or Transportation and Disposal by sending to Registered Recycler/Refiner
2	Cotton Rags	33.2	0.3 MTPA	Collection, Storage, Transportation and Disposal by sending to CHWIF
3	Discarded Containers	33.1	1000 Nos./ Annum	Collection, Storage, Detoxification/Decontamination and Reuse or Transportation and Disposal by sending to authorized Decontamination facility.

- 6.3 The authorization is granted to operate a facility as above.
- 6.4 The authorization shall be in force for a period up to 09/03/2028.
- 6.5 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.
- 7. TERMS AND CONDITIONS OF AUTHORISATION:
- 7.1 The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- 7.2 The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the Gujarat Pollution Control Board.
- 7.3 The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
- 7.4 Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
- 7.5 The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;

Page 5 of 6

Website: https://gpcb.gujarat.gov.in

- 7.6 The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
- 7.7 It is the duty of the authorised person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- 7.8 The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- 7.9 The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 7.10 The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
- 7.11 The importer or exporter shall bear the cost of import or export and mitigation of damages if, any.
- 7.12 An application for the renewal of an authorization shall be made as laid down under Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016.
- 7.13 Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 7.14 Annual return shall be filed by June 30th for the period ensuring 31st March of the year.
- 7.15 Unit shall have to display the relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No. 657 of 1995 dated 14<sup>th</sup> October 2003.
- 7.16 Unit shall have to display on-line data outside the main factory gate with regard to and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises.
- 7.17 Unit shall have to manage used or spent oil; empty or discarded barrels /containers /liners contaminated with hazardous chemicals /wastes, process waste as per Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986 and shall apply Authorization for all applicable waste.

FOR AND ON BEHALF OF GUJARAT POLLUTION CONTROL BOARD

> (IREAN KAGZI) ENVIRONMENT ENGINEER

Page 6 of 6



# **GUJARAT POLLUTION CONTROL BOARD**

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382010

Phone: (079) 23222425

(079) 23222152

Fax : (079) 23232156

Website: www.gpcb.gov.in

# Application For CTE after EC

File No : GPCB/ (PCB ID. - 82422)

CTE-68492

To.

M/s. Adani Cement Industries Limited,

136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 179/P, 187/P to

191/P, Adani Cementation Limtied, GIDC- Dahej Industrial Area,

City :Ahmedabad , Dist : Bharuch , Taluka : Vagra

Sub: Consent to Establish (After obtaining Environment Clearance) under Section 25 of Water Act 1974 and Section 21 of Air Act 1981.

Ref: (1) Your online application No. 290730 dated 02/11/2023

(1) Environment Clearance issued by State Authority vide their letter no. SIA/GJ/IND/302856/2023 Dated 20/10/2023

Sir,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants **Consent to Establish (After obtaining Environment Clearance) under Section 25 of Water Act 1974 and Section 21 of Air Act 1981** for manufacturing of products as mentioned into the Environment Clearance (EC) granted vide letter under reference no (2) above.

# Consent To Establish Is Granted Subject To The Following Conditions: -

- 1) The validity period of this CTE shall be Seven Years from the issue of this order.
- Applicant shall strictly comply with all conditions stipulated by competent authority in the order of Environment Clearance issued vide letter under reference No.: 2 above.
- 3) The applicant shall however, not without the prior concern of the Board. Bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the water Act 1974, the Air 1981 and the Environment (Protection) Act 1986.



For and on behalf of Gujarat Pollution Control Board

K.N. Vaghamshi ROH Head - Bharuch

This order is issued to 136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 179/P, 187/P to 191/P, Adani Cementation Limited, GIDC- Dahej Industrial Area, City: Ahmedahad, Dist: Bharuch, Taluka: Vagra (82422) for CTE amendment after obtaining EC.

# Environmental Monitoring (April – 2024 to September – 2024)



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : roya/environment@live.com = admin@roya/consultancy.com

### REAS/ACIL/2024-25/02-02

Date: 01/05/2024

To:

M/s. Adani Cement Industries Limited, Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Kind attn.: Mr. Kalubhai Goyani

Sub.: Report of Stack Emission Analysis, Waste water analysis.

Ref.: Our visit at AWL Plant is on April 2024.

Dear Sir.

Please find enclosed following analysis report in one copy:

$1 \le$	Report of Waste Water Analysis	:	01 Samples
2	Report of Stack Emission Monitoring	24	09 Locations
3.	Report of National Ambient Air Quality Monitoring	ŝ.	40 Locations
4.,	Report of Drinking Water Analysis	33	01 Samples
5	Report of Ambient Noise Level Monitoring	8	08 Samples
6	Report of Work Place Noise Level Monitoring	3	06 Samples
7.	Report of Fugitive Emission	10	05 Samples

Thanking you,

Yours faithfully,

Royal Environment Auditing & Consultancy Service.

Digvijay Jadeja

Encl: As above.





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@five.com = admin@royalconsultancy.com

Ref. No.: 802/04/2024-25

Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 1
01	Date of Sampling		25/04/2024
02	Time of sampling	et Hr.	11:45
03	Stack Attached to	### F	Cement Mill
04	Air Pollution Control Measures		Bag Filter
05	Stack Height	Meter	70
06	Stack Diameter	Meter	
07	Stack Temperature	°C	80
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.4
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	22
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024-

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoorn School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 803/04/2024-25 Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 2
01	Date of Sampling		25/04/2024
02	Time of sampling	Hr. :	12:30
03	Stack Attached to	Mari Mari	Packing Plant (1 No.)
04	Air Pollution Control Measures		Bag Filter
05	Stack Height	Meter	50
06	Stack Diameter	Meter	
07	Stack Temperature	°C	60
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	. 20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150 ·
13	Measured Concentration of PM.	mg/Nm³	15
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NQ <sub>x</sub>	ppm	. 50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024



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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@tive.com ■ admin@royalconsultancy.com

Ref. No.: 804/04/2024-25 Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per |S Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 3
01	Date of Sampling		25/04/2024
02	Time of sampling	# Hr.	14:00
03	Stack/vent Attached to		Conveyor belt L11BC1 Vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	<del>:115</del> )
07	Stack/Vent Temperature	°C	62
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LP <b>M</b>	21
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	38
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Palkot

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024



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# **Environment Auditing & Consultancy Service**

Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 805/04/2024-25 Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 4
01	Date of Sampling		25/04/2024
02	Time of sampling	Hr.	14:30
03	Stack/Vent Attached to	1 <del>237</del> 1	Conveyor belt 531BC1 tranfer point Vent
04	Air Pollution Control Measures	5	Bag Filter
05	Stack/ vent Height	Meter	30
06	Stack/Vent Diameter	Meter	-
07	Stack/Vent Temperature	°C	67
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.8
10	Isokinetic flow rate for P.M. Sampling	LPM	23
11	Gaseous Sampling Flow Rate	LPM	2.0
12 -	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	28
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of ŠO <sub>2</sub>	ppm	0.0
.16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024





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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Maya, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 806/04/2024-25

Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack- 5
01	Date of Sampling	<u></u>	09/04/2024
02	Time of sampling	Hr.	11:00
03	Stack/vent Attached to	•••	Conveyor belt K11BC1 tranfer point vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	Sec. 1
07	Stack/Vent Temperature	°C	68
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	6.8
10	Isokinetic flow rate for P.M. Sampling	LPM	19 .
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	35
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on 14/01/2024





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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 807/04/2024-25

Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 6
01	Date of Sampling		25/04/2024
02-	Time of sampling	· Hr.	15:00
03	Stack/vent Attached to		Conveyor belt 491BC1 tranfer point
04	Air Pollution Control Measures	nee-	Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	72
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	7.3
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	41
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	<sup>it</sup> ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024 -



Royal Environment Auditing & Consultancy Service



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 808/04/2024-25

Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 7
01	Date of Sampling		09/04/2024
02	Time of sampling	Hr.	14:00
03	Stack/Vent Attached to		Conveyor belt 491BC2 tranfer point
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/vent Diameter	Meter	
07	Stack/ Vent Temperature	°C	72
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	7.1
10 .	Isokinetic flow rate for P.M. Sampling	. LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	26
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ррт	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 809/04/2024-25

Date: 01/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars		Unit	Stack- 8
01	Date of Sampling		<del></del>	09/04/2024
02	Time of sampling		Hr.	. 14:30
03	Stack/Vent Attached to			Conveyor belt K11BC2
04	Air Pollution Control Measures		1 <del>2112</del> 3	Bag Filter
05	Stack/Vent Height		Meter	30
06	Stack/Vent Diameter		Meter	
07	Stack/Vent Temperature		°C	63
80	Ambient Temperature		°C	32
09	Average Velocity of Flue Gases		m/Sec.	7.8
10	Isokinetic flow rate for P.M. Sampling		LPM	22
៊ី 11	Gaseous Sampling Flow Rate	a 2	LPM	2.0
<b>⊘ 12</b>	Permissible limits for PM	3.5	mg/Nm³	150
13	Measured Concentration of PM.		mg/Nm³	32
14	Permissible limits for SO <sub>2</sub>		- ppm	100
15	Measured Concentration of SO <sub>2</sub>		ppm	0.0
16	Permissible limits for NO <sub>x</sub>	12	ppm	50
17	Measured Concentration of NO <sub>x</sub>		ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024





Royal Environment Auditing & Consultancy Service



Piot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT -360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Date: 01/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

Ref. No.: 810/04/2024-25

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	CS-01 Vent	CS-02 Vent
01	Date of Sampling		25/04/2024	25/04/2024
02	Time of sampling	Hr.	14:45	15:30
03	Stack/Vent Attached to	(Carles)	Cement Silo -1	Cement Silo -2
04	Air Pollution Control Measures	<u>-</u>	Bag Filter	Bag Filter
05	Stack/Vent Height	Meter	30	30
06	Stack/Vent Diameter	Meter	00.000 00.000 00.000	
07	Stack/Vent Temperature	°C °	66	68
80	Ambient Temperature	°C	32	33
09	Average Velocity of Flue Gases	m/Sec.	7.8	8.2
10	Isokinetic flow rate for P.M. Sampling	LPM	22	23
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm³	150	150
13	Measured Concentration of PM.	mg/Nm³	26	28
14	Permissible limits for SO <sub>2</sub>	ppm	100	100
15	Measured Concentration of SO <sub>2</sub>	<sub>m</sub> ppm	0.0	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024







Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 811/04/2024-25

Date: 01/05/2024

# WORK ZONE NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 25/04/2024

			Results in dB(A)							
Sr. No.	Location of Sampling	1.7	Day Time 06:30am to 10:30pm	Night Time 10:30pm to 06:30am						
Permissi	ble Limits for 08:00 Hrs.		90.0	dB(A)						
01.	Main Compressor Room		82.2	74.2						
02	Cement Mill	€ •	81.1	73.1						
03.	Fly Ash Compressor Room	© ,4	80.1	72.3						

Instruments used : Sound level meter, Model : SL 4030 (Lutron)

Range: A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Calibration is done on : 01/01/2024

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 812/04/2024-25

Date: 01/05/2024

# AMBIENT NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 25/04/2024

Sr. No. Location of Sampling		Results in dB(A) (Day Time) 6:30am to 10:30pm	74	Results in dB(A) (Night Time) 10:30pm to 6:30am
Permissi	ble Limits	75.0		70.0
01.	Security Main gate (East)	<b>69.1</b>		62.1
02.	Packing plant (South)	70.3	ž.	64.1
03.	Cement mill (North)	71.1		65.3
04.	Clinker Silo (West)	73.2		64.2

#### **CPCB Standards**

	Area Code	Category of Area / Zone		Limit in dB(A) Leq.							
9.		Category of Area / Zolle		. Day Time	Night Time						
	Α	Industrial Area		75.0	70.0						
	В :	Commercial Area	2	65.0	55.0 🚎						
	C	Residential Area		55.0	45.0						
	D	Silence Zone		50.0	40.0						

Instruments used: Sound level meter, Model: SL 4030 (Lutron)

Range: A - 30 to 80 dB, B-50 to 100 dB,C-80 to 130 dB.

Calibration is done on: 01/01/2024





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Ref. No.: 813/04/2023-24

Date: 01/05/2024

### REPORT OF FUGITIVE EMISSION ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 5182\_23/4/6.

Sr. No.	Particulars	Unit	Location No. 1	Location No. 2	Location No. 3	Location No. 4	Location No. 5
01.	Location of Sampling	===	Clinker shed	Gypsum shed	Packing plant	Truck loading/ Parking area	Cement mill
02	Date of sampling	200	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
03.	Time of sampling	Hr	09:30	10:30	11:30	12:30	12:00
04.	Duration of Sampling	Min.	480	480	480	480	480
05.	Dominant Wind Direction (From)	222	sw	SW	SW	sw	sw
06.	Average Wind Speed	Km/Hr	1 to 16	4 to 22	2 to 15	2 to 24	4 to 21
07.	Flow rate during sampling	m3/Hr	1.0	1.0	1.0	. 1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2	0.2
09.	Permissible Limits of SPM *	μg/m³	5000	5000	5000	5000	5000
10,	Measured Concentration of SPM	µg/m³	3142	4232	4721	4802	4832

Instrument used : Envirotech make (HVS), Model No. APM-430BL, Gaseous Sampling Kit,

Calibration done on: 01/01/2024

\* Permissible limits of fugitive emission based on CPCB Guidelines

5

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Ref. No.: 814/04/2024-25

Date: 01/05/2024

# REPORT OF EFFLUENT ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample Collection : Sewage Treatment Plant

Date of Sampling: 09/04/2024

Sr. No	. Parameters	Unit	Permissible Limit*	STP O/L
01.	pН	mg/l	6.5-9	7.6
01.	Total Suspended Solids	mg/l	<100	49
02	B.O.D. (3 day's at 27 °C)	mg/l	. <30	25.1
. 03.	Fecal Coliform	MPN	. <1000MPN/100ml	0.5

<sup>\*</sup> Permissible limit is only applicable to STP O/L (Treated Water)

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Ref. No: 815/04/2024-25

Date: 01/05/2024

### REPORT OF DRINKING WATER SAMPLES

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample: Drinking Water (Admin Office)

Date of Sampling :09/04/2024

Sr. No	. Parameters	Unit	Acceptable Limits(*)	Results
01.	рН	pH Units	6.5 to 8.5	7.1
02.	Colour	Hazen	5	Colourless
03	Turbidity	NTU	÷ 1	< 1.0
04.	Total Dissolved Solids	mg/l	500	120
05.	Total Suspended Solids	mg/l		12
06.	Total Solids	mg/l	==	132
07.	Chlorides	mg/l	250	51.9
08.	Sulphates	mg/l	200	12.4
09.	Total Hardness (As CaCO <sub>3</sub> )	. mg/l	200	67.2
, 1 <b>0</b> .	Calcium (as Ca)	mg/l	75	21.5
<sup>≅</sup> 11.	Magnesium (as Mg)	mg/l	30	≅ € 6.1
12.	Total Alkalinity	mg/l	200	31
· 13.	Nitrates	mg/l ·	- 45	4.1
14.	Flouride	mg/l	1.0	0.05
15.	E-Coli	MPN/100ml	Absent	Absent

(\*) Acceptable Limit as per IS 10500 : 2012, Drinking Water Specification

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Ref No 816/04/2024-25

Date: 01/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: APRIL 2024

Name of company: M/s. Adami Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagre, Dist.: Bharuch.

5. No.	Particulars .	Unit	Nr. Main Security Main gate (East)									
01.	No. of Week	(#)		1		2		3		4		5
02	Date & Time Starting of Monitoring	-	01/04/2024 11:45	02/04/2024 12:00	08/04/2024 12:15	09/04/2024 12:30	15/04/2024 12:00	16/04/2024 12:15	24/04/2024 11:30	25/04/2024 11:45	29/04/2024 12:15	30/04/2024 12:30
03	Date & Time - Ending of Monitoring	=	02/04/2024 11:45	03/04/2024 12:00	09/04/2024 12:15	10/04/2024 12:30	16/04/2024 12:00	17/04/2024 12:15	25/04/2024 11:30	26/04/2024 11:45	30/04/2024 12:15	01/05/202 12:30
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
05.	Dominant Wind Direction (From)	=	NE	NE	SE	SE	NE	SE	SE	SE	NE	SE
06	Wind Speed Velocity	Km/Hr	1 to 18	1 to 15	2 to 17	4 to 22	5 to 20	4 to 20	2 to 13	1 to 12	3 to 18	3 to 12
07	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80	Average Flow Rate For PM10	т3/Міп.	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21	1.16	1.11
09	Average Flow Rate for Gasious	LPM	0.2	0,2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5*	µg/m³	60	60	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2 5	µg/m³	32.2	- 34.1	36.2	29 1	31.1	32.1	36.2	41.2	39 2	44.1
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	63,2	65.1	62,2	69.1	72.1	59.2	73 1	65.2	67.1	78.1
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	- 80	-80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	13.1	14.2	16.1	15.1	16.3	17.1	11.2	15.2	16.2	18.2
16.	Permissible Limits of NO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80	80	80
17	Measured Concentration-of NO <sub>2</sub>	µg/m³	26.1	24.2	21.2	20.3	19.2	25.2	22.3	25.1	20.2	21.1

Instrument Used: Ecolech make [1] RDS, APM - 217BL, (2) Gaseous Pollutants Sampler- AAS-109, (3) Ecolech PM2 5 Sampler- AAS 127

Calibration Done on 13/01/2024

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Ref. No : 817/04/2023-24

Date: 01/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: APRIL 2024

Name of company: M/s. Adam Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit					Packing Pl	lant (South)					
01.	No. of Week	-	1		2		3		4		5		
02	Date & Time Starting of Monitoring	=	01/04/2024 11:45	02/04/2024 12:00	08/04/2024 12:15	09/04/2024 12:30	15/04/2024 12:00	16/04/2024 12:15	24/04/2024 11:30	25/04/2024 11:45	29/04/2024 12:15	30/04/2024 12:30	
03	Date & Time - Ending of Monikoring	NZ	02/04/2024 11:45	03/04/2024 12:00	09/04/2024 12:15	10/04/2024 12:30	16/04/2024 12:00	17/04/2024 12:15	25/04/2024 11:30	26/04/2024 - 11:45	30/04/2024 12:15	01/05/202 12:30	
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	
05	Dominant Wind Direction (From)	14	NE	NË	SE	SE	NE	SE	SE	SE	NE	SE	
08	Wind Speed Velocity	Km/Hr	1 to 18	1 to 15	2 to 17	4 to 22	5 to 20	4 to 20	2 to 13	1 to 12	3 to 18	3 to 12	
07.	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	= 1.0	1.0	1.0	1.0	
08	Average Flow Rate For PM10	м3л4п.	1.13	1 12	1.18	1.14	1,12	1.11	1.12	1.21	1.16	1,12	
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
10.	Permissible Limits of PM2.51	pg/m³	60	60	60	60	60	60	60	60	60	60	
11.	Measured Concentration of PM2 5	µg/m³	42.2	413	46.2	52.2	39.2	35.1	46.1	48.1	52.1	38.2	
12.	Permissible Limits of PM10 *	µg/m²	100	100	100	100	100	100	100	100	100	100	
13	Measured Concentration of PM10	hð/w <sub>3</sub>	62.2	68.1	69.2	72.1	58.2	62.2	64.1	70.2	68.2	72.1	
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³ "	80	80	80	80	80	80	80	80	80	± 80	
15	Measured Concentration of SO <sub>2</sub>	µ <b>g</b> /m³	15.2	11.3	14.1	18.2	12.2	16.3	13.1	16.1	15.2	12.1	
16.	Permissible Limits of NO <sub>2</sub> *	µg/m³	03	80	80	80	80	80	80	80	80	80	
17	Measured Concentration of NO <sub>2</sub>	µg/m³ ∙	21.1	24.2	26.3	23.1	20.3	19.1	22.2	23.3-	27.2	24.3	

Instrument Used: Ecolech make (1) ROS, APM - 217BL, (2) Gaseous Polliulants Sampler- AAS-109, (3) Ecolech PM2 5 Sampler- AAS 127

Calibration Done on: 13/01/2024

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5



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Ref. No : 818/04/2024-25

Date: 01/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH :APRIL 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

5. No.	Particulars	Unit					Cement m	ill (North)	+:			
01.	No. of Week			1		2		3		4		5
02	Date & Time Starting of Monitoring	=	01/04/2024 11:45	02/04/2024 12:00	08/04/2024 12:15	09/04/2024 12:30	15/04/2024 12:00	16/04/2024 12:15	24/04/2024 11:30	25/04/2024 11:45	29/04/2024 12:15	30/04/2024 12:30
03	Date & Time - Ending of Monitoring	æ/	02/04/2024 11:45	03/04/2024 12:00	09/04/2024 12:15	10/04/2024 12:30	16/04/2024 12:00	17/04/2024 12:15	25/04/2024 11:30	26/04/2024 11:45	30/04/2024 12:15	01/05/2024 12:30
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	30	NE	NE	SE	SE	NE	SE	SE	SE	NE	SE
06	Wind Speed Velocity	Km/Hr	1 to 18	1 to 15	2 to 17 -	4 to 22	5 to 20	4 to 20	2 to 13	1 to 12	3 to 18	3 to 12
07	Average Flow Rate For PM2.5	m3/Hr.	1,0	1.0	1.0	1,0	1,0	1.0	1.0	1.0	1.0	1.0
08	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1,12	1.11	1.12	1.21	1,16	1.12
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 °	µg/m³	60	_ 60	60	60	60	60	60	60	60	60
11.	Measured Concentration of Pt/12 5	րը/m³	38.2	42.2	48,1	52.1	39.1	46.1	42.3	38.3	41.1	32.2
12.	Permissible Limits of PM10 *	<sup>6</sup> mtgq	100	100	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	hā <sub>j</sub> us <sub>3</sub>	59.1	63.1	64.2	72.1	78.2	68.1	71.2	62.3	64.1	71.2
14.	Permissible Limits of SO <sub>2</sub> "	µg/m³	80	80	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	16.2	12.1	11.1	16.3	15.1	14.3	17.1	15.2	14.2	13.1
16.	Permissible Limits of NO <sub>2</sub> *	hð <sub>i</sub> w <sub>3</sub>	80	80	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	μg/m³	26.1	- 22 1	25.3	22.3	20 1	21.1	24.2	23.2 -	21.2	20.1

Instrument Used: Ecotech make (1) RDS, APM - 217B1, (2) Gaseous Polllutants Sampler- AAS-109, (3)Ecotech PM2 5 Sampler- AAS 127

Calibration Done on : 13/01/2024

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Ref. No.: 819/04/2024-25

Date: 01/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: APRIL 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No. 136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 176/P, 179/P, 187/P to 191/P of Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit					Clinker S	ilo (West)				
01.	No. of Week	=	1			2		3		4	5	
02	Date & Time Starting of Monitoring	=	01/04/2024 11:45	02/04/2024 12:00	08/04/2024 12:15	09/04/2024 12:30	15/04/2024 12:00	16/04/2024 12:15	24/04/2024 11:30	25/04/2024 11:45	29/04/2024 12:15	30/04/2024 12:30
03	Date & Time - Ending of Monitoring	H	02/04/2024 11:45	03/04/2024 12:00	09/04/2024 12:15	10/04/2024 12:30	16/04/2024 12:00	17/04/2024 12:15	25/04/2024 11:30	26/04/2024 11:45	30/04/2024 12:15	01/05/2024 12:30
04.	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	=	NE	NE	SE	SE	NE	SE	SE	SE	NE	SE
06	Wind Speed Velocity	Km/Hr	1 10 18	1 to 15	2 to 17	4 to 22	5 to 20	4 to 20	2 to 13	1 to 12	3 to 18	3 to 12
07	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08.	Average Flow Rate For PM10	m3/Min	1_13	1.12	1.18	1.14	1.12	1.11	1.12	1.21	1.16	1.12
09.	Average Flow Rate for Gasious	LPM	0,2	0.2	0,2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5*	µg/m³	60	60	60	60	60	60	60	60	60	60
11:	Measured Concentration of PM2.5	hB <sub>t</sub> w <sub>3</sub>	36.1	42.1	45.3	52-1	38.1	32 1	35.1	41.2	44.1	46.2
12.	Permissible Limits of PM10 *	hô <sub>l</sub> w <sub>3</sub>	100	100	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	62.1	59.1	63.1	70.2	64-1	52 1	68 1	69.2	71.2	64.2
14.	Permissible Limits of SO <sub>2</sub> *	μg/m³	80	80	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m²	13.1	14.2	16.2	17.1	12.1	16.2	17.1	14.2	18.1	15.2
15.	Permissible Limits of NO <sub>2</sub> *	ha/wi <sub>2</sub>	80	80	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	µg/m³	22.1	24.2	26.2	23.1	20,2	24.1	22.2	23.1	24.2	21.2

Instrument Used: Ecotech make (1) RDS. APM - 217BL, (2) Gaseous Polikulants Sampler-AAS-109, (3) Ecolech PM2.5 Sampler-AAS 127

Calibration Done on 13/01/2024

reject.

Analyst

Royal Environment Auditing & Consultancy Service, Rajket



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#### REAS/ACIL/2024-25/05-03

Date: 31/05/2024

To;

**M/s. Adani Cement Industries Limited,** Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Kind attn.: Mr. Kalubhai Goyani

Sub.: Report of Stack Emission Analysis, Waste water analysis.

Ref.: Our visit at ACIL Plant is on May 2024.

Dear Sir,

Please find enclosed following analysis report in one copy:

1.	Report of Waste Water Analysis	*	01 Samples
2.	Report of Stack Emission Monitoring	:	10 Locations
3.	Report of National Ambient Air Quality Monitoring	:	32 Locations
4.	Report of Drinking Water Analysis		01 Samples
5.	Report of Ambient Noise Level Monitoring		08 Samples
6.	Report of Work Place Noise Level Monitoring		06 Samples
7.	Report of Fugitive Emission	1	05 Samples

Thanking you,

Yours faithfully,

Royal Environment Auditing & Consultancy Service,

Digvijay Jadeja

Encl: As above.





Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 902/05/2024-25

Date: 31/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 1
01	Date of Sampling		29/05/2024
02	Time of sampling	Hr.	11:30
03	Stack Attached to		Cement Mill
04	Air Pollution Control Measures		Bag Filter
05	Stack Height	Meter	70
06	Stack Diameter	Meter	
07	Stack Temperature	°C	82
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	21
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	25
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Rajkot

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Ref. No.: 903/05/2024-25 Date: 31/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 2
01	Date of Sampling		29-05-2024
02	Time of sampling	Hr.	11: <b>4</b> 5
03	Stack Attached to	222	Packing Plant (1 No.)
04	Air Pollution Control Measures	200	Bag Filter
05	Stack Height	Meter	50
06	Stack Diameter	Meter	3-22
07	Stack Temperature	°C	61
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	19
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Rajkot

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 904/05/2024-25

Date: 31/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 3
01	Date of Sampling		29-05-2024
02	Time of sampling	Hr.	12:00
03	Stack/vent Attached to	722	Conveyor belt L11BC1 Vent
04	Air Pollution Control Measures	8 <del>838</del> 1	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	(man)
07	Stack/Vent Temperature	°C	65
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	7.3
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	42
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 905/05/2024-25

Date: 31/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 4
01	Date of Sampling		29-05-2024
02	Time of sampling	Hr.	12:30
03	Stack/Vent Attached to		Conveyor belt 531BC1 tranfer point Vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/ vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	62
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	7.5
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	32
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Rajkol

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Ref. No.: 906/05/2024-25 Date: 31/05/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 5
01	Date of Sampling		29-05-2024
02	Time of sampling	Hr.	14:00
03	Stack/vent Attached to		Conveyor belt K11BC1 tranfer point vent
04	Air Pollution Control Measures	19	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	***
07	Stack/Vent Temperature	°C	61
08	Ambient Temperature	°C	33
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150
13	Measured Concentration of PM.	mg/Nm³	41
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024



Analyst

Royal Environment Auditing & Consultancy Service

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Ref. No.: 907/05/2024-25

Date: 31/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 6
01	Date of Sampling		29-05-2024
02	Time of sampling	Hr.	14:45
03	Stack/vent Attached to		Conveyor belt 491BC1 tranfer point
04	Air Pollution Control Measures	*	Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	66
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.5
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	45
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Raikot

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Ref. No.: 908/05/2024-25

Date: 31/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 7
01	Date of Sampling		29-05-2024
02	Time of sampling	Hr.	15:00
03	Stack/Vent Attached to	1909.	Conveyor belt 491BC2 tranfer point
04	Air Pollution Control Measures	- <del>111</del> 2	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/vent Diameter	Meter	
07	Stack/ Vent Temperature	°C	70
80	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.5
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	32
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 909/05/2024-25

Date: 31/05/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 8
01	Date of Sampling		29-05-2024
02	Time of sampling	Hr.	14:45
03	Stack/Vent Attached to		Conveyor belt K11BC2
04	Air Pollution Control Measures		Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	67
08	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	8.1
10	Isokinetic flow rate for P.M. Sampling	LPM	23
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm <sup>3</sup>	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	<b>4</b> 5
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

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Calibration done on : 14/01/2024

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Ref. No.: 910/05/2024-25

Date: 31/05/2024

### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	CS-01 Vent	CS-02 Vent
01	Date of Sampling		29-05-2024	29-05-2024
02	Time of sampling	Hr.	15:45	16:30
03	Stack/Vent Attached to		Cement Silo -1	Cement Silo -2
04	Air Pollution Control Measures		Bag Filter	Bag Filter
05	Stack/Vent Height	Meter	30	30
06	Stack/Vent Diameter	Meter	***	19451
07	Stack/Vent Temperature	°C	62	68
08	Ambient Temperature	°C	31	34
09	Average Velocity of Flue Gases	m/Sec.	7.5	8.0
10	Isokinetic flow rate for P.M. Sampling	LPM	22	23
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm³	150	150
13	Measured Concentration of PM.	mg/Nm³	29	34
14	Permissible limits for SO <sub>2</sub>	ppm	100	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 911/05/2024-25 Date: 31/05/2024

# WORK ZONE NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 29/05/2024

	Location of Sampling	Results in dB(A)		
Sr. No.		Day Time 06:30am to 10:30pm	Night Time 10:30pm to 06:30am	
Permissible Limits for 08:00 Hrs.		90.0 dB(A)		
01.	Main Compressor Room	83.6	75.8	
02.	Cement Mill	82.6	74.8	
03.	Fly Ash Compressor Room	81.5	73.6	

Instruments used : Sound level meter, Model : SL 4030 (Lutron)

Range: A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Calibration is done on: 17/05/2024

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Ref. No.: 912/05/2024-25

Date: 31/05/2024

# AMBIENT NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 29/05/2024

Sr. No.	Location of Sampling	Results in dB(A) (Day Time) 6:30am to 10:30pm	Results in dB(A) (Night Time) 10:30pm to 6:30am
Permiss	ible Limits	75.0	70.0
01.	Security Main gate (East)	70.6	63.9
02.	Packing plant (South)	71.4	65.8
03	Cement mill (North)	72.3	66.8
04.	Clinker Silo (West)	74.8	65.8

#### **CPCB Standards**

Area	Category of Area / Zone	Limit in dB(A) Leq.		
Code		Day Time	Night Time	
Α	Industrial Area	75.0	70.0	
В	Commercial Area	65.0	55.0	
С	Residential Area	55.0	45.0	
D	Silence Zone	50.0	40.0	

Instruments used : Sound level meter, Model : SL 4030 (Lutron) Range : A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Calibration is done on: 17/05/2024

Rajkor

Analyst

Royal Environment Auditing & Consultancy Service



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 • E-mail: royalenvironment@live.com • admin@royalconsultancy.com

Ref. No.: 913/05/2024-25

Date: 31/05/2024

### REPORT OF FUGITIVE EMISSION ANALYSIS

Name of company: M/s. Adami Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 5182\_23/4/6

Sr. No.	Particulars	Unit	Location No. 1	Location No. 2	Location No. 3	Location No. 4	Location No. 5
01.	Location of Sampling	West	Clinker shed	Gypsum shed	Packing plant	Truck loading/ Parking area	Cement mill
02	Date of sampling	***	29/05/2024	29/05/2024	29/05/2024	29/05/2024	29/05/2024
03.	Time of sampling	Нг	09:30	10:30	11:30	12:30	12:00
04.	Duration of Sampling	Min.	480	480	480	480	480
05.	Dominant Wind Direction (From)	500)	sw	sw	SW	sw	sw
<b>0</b> 6.	Average Wind Speed	Km/Hr	2 to 16	4 to 20	2 to 15	3 to 24	4 to 21
07.	Flow rate during sampling	m3/Hr	1,0	1.0	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	1PM	0.2	0.2	0.2	0.2	0.2
09.	Permissible Limits of SPM *	μg/m³	5000	5000	5000	5000	5000
10	Measured Concentration of SPM	μg/m³	3256	4125	4666	4712	4369

Instrument used : Envirotech make (HVS), Model No. APM-430BL, Gaseous Sampling Kit,

Calibration done on : 01/01/2024

\* Permissible limits of fugitive emission based on CPCB Guidelines:

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Ref. No.: 914/05/2024-25

Date: 17/05/2024

# REPORT OF EFFLUENT ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample Collection: Sewage Treatment Plant

Date of Sampling: 13/05/2024

Sr. No	. Parameters	Unit	Permissible Limit*	STP O/L
01.	pН	mg/l	6.5-9	7.9
01.	Total Suspended Solids	mg/l	<100	50
02.	B.O.D. (3 day's at 27 °C)	mg/l	<30	25.9
03.	Fecal Coliform	MPN	<1000MPN/100ml	0.6

<sup>\*</sup> Permissible limit is only applicable to STP O/L (Treated Water)

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Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No: 915/05/2024-25

Date: 17/05/2024

### REPORT OF DRINKING WATER SAMPLES

Name of company: M/s. Adani Cement Industries Limited.

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate.

Tal.: Vagra, Dist.: Bharuch.

Source of Sample: Drinking Water (Admin Office)

Date of Sampling: 13/05/2024

Sr. No.	Parameters	Unit	Acceptable Limits(*)	Results
01.	рН	pH Units	6.5 to 8.5	7.5
02.	Colour	Hazen	5	Colourless
03.	Turbidity	NTU	1	< 1.0
04.	Total Dissolved Solids	mg/l	500	125
05.	Total Suspended Solids	mg/l		13
06.	Total Solids	mg/l		140
07.	Chlorides	mg/l	250	52
08.	Sulphates	mg/l	200	12.9
09.	Total Hardness (As CaCO <sub>3</sub> )	mg/l	200	67.9
10.	Calcium (as Ca)	mg/l	75	21.9
11.	Magnesium (as Mg)	mg/l	30	6.7
12.	Total Alkalinity	mg/l	200	32
13.	Nitrates	mg/l	45	4.5
14.	Flouride	mg/l	1.0	0.06
15.	E-Coli	MPN/100ml	Absent	Absent

(\*) Acceptable Limit as per IS 10500 : 2012, Drinking Water Specification

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Ref. No.: 916/05/2024-25

Date: 31/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: MAY 2024

Name of company: M/s. Adani Cement Industries Limited,

Piot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit		Nr. Main Security Main gate (East)						
Q1.	No. of Week			1		2	;	3		4
02	Date & Time Starting of Monitoring		06/05/2024 08:45	07/05/2024 09:00	13/05/2024 09:15	14/05/2024 09:30	20/05/2024 09:45	21/05/2024 10:00	27/05/2024 10:45	28/05/2024 11:00
03.	Date & Time - Ending of Monitoring		07/05/2024 08.45	08/05/2024 09:00	14/05/2024 09:15	15/05/2024 09:30	21/05/2024 09:45	22/05/2024 10:00	28/05/2024 10:45	29/05/2024 11:00
04.	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05.	Dominant Wind Direction (From)	E	NE	NE	SE	SE	NE	SE	SE	SE
06.	Wind Speed Velocity	Km/Hr	2 to 13	1 to 13	2 to 12	2 to 16	3 to 16	1 to 16	3 to 15	3 to 14
07.	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08.	Average Flow Rate For PM10	m3/Min	1.13	1,12	1.18	1,14	1.12	1.11	1.12	1.21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	µg/m³	60	60	60	60	60	60	60	60
110	Measured Concentration of PM2.5	µg/m³	31.5	33.6	35.9	28.5	30.6	33.6	35.8	40,5
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100
13.	Measured Concentration of PM10	µg/m³	64.8	66.8	63.8	70.5	73.6	62.8	74.8	68.0
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	hâlw <sub>2</sub>	12.6	13,5	15.8	14.5	15.6	16.8	12.5	14.5
16.	Permissible Limits of NO <sub>2</sub> *	hâ <sub>l</sub> w,	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	h <b>∂</b> iw <sub>3</sub>	25.3	23.6	20.5	19.5	18.6	24.5	21.6	23.5

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polllutants Sampler- AAS-109, (3) Ecotech PM2.5 Sampler- AAS 127

Calibration Done on | 13/01/2024

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Royal Environment Auditing a Consultancy Service, Rajkot



Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 917/05/2024-25

Date: 31/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: MAY 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

5. No.	Particulars	Unit		Packing Plant (South)						
01.	No. of Week	· ·		1	2	2	;	3		4
02	Date & Time Starting of Monitoring		06/05/2024 09:00	07/05/2024 09:10	13/05/2024 09:30	14/05/2024 09:40	20/05/2024 10:00	21/05/2024 10:10	27/05/2024 11:15	28/05/2024 11:30
03	Date & Time - Ending of Monitoring	-	07/05/2024 09:00	08/05/2024 09:10	14/05/2024 09:30	15/05/2024 09:40	21/05/2024 10:00	22/05/2024 10:10	28/05/2024 11:15	29/05/2024 11:30
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	T.	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr.	2 to 13	1 to 13	2 to 12	2 to 16	3 to 16	1 to 16	3 to 15	3 to 14
07.	Average Flow Rate For PM2.5	m3/Hr	1.0	1,0	1.0	1.0	1,0	1.0	1.0	1,0
80	Average Flow Rate For FM10	m3/Min	1.13	1.12	1.18	1;14	1.12	1.11	1.12	1,21
09.	Average Flow Rate for Gasious	LPM	0.2	0,2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	µg/m³	60	60	60	60	60	60	60	60
11⊵:	Measured Concentration of PM2.5	hðiw <sub>3</sub>	41.5	40.3	45.8	51.6	40.6	36.8	45.8	49.2
12.	Permissible Limits of PM10*	µg/m³	100	100	100	100	100	100	100	100
13.	Measured Concentration of PM10	µg/m³	63.8	62.5	70.5	73.5	59.3	63.8	65.8	71.6
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	hā <sub>y</sub> ш <sub>2</sub>	14.5	12.3	13.6	17.5	13.5	15.1	16.2	15.2
16.	Permissible Limits of NO <sub>2</sub> *	hā/m²	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	20.3	23.6	25.1	22.4	19.6	18,2	20.3	21.8

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polliulants Sampler- AAS-109, (3) Ecotech PM2.5 Sampler- AAS 127

Calibration Done on: 13/01/2024

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Ref. No.: 918/05/2024-25

Date: 31/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: MAY 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit		Cement mill (North)						
01.	No. of Week	-		1		2		3		4
02.	Date & Time Starting of Monitoring	=	06/05/2024 09:15	07/05/2024 09:25	13/05/2024 09:45	14/05/2024 09:55	20/05/2024 10:15	21/05/2024 10:25	27/05/2024 12:15	28/05/2024 12:30
03	Date & Time - Ending of Monitoring	-	07/05/2024 09:15	08/05/2024 09:25	14/05/2024 09:45	15/05/202409 <sup>-</sup> 55	21/05/2024 10:15	22/05/2024 10:25	28/05/2024 12:15	29/05/2024 12:30
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05.	Dominant Wind Direction (From)	722	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr	2 to 13	1 to 13	2 to 12	2 to 16	3 to 16	1 to 16	3 to 15	3 to 14
07.	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08	Average Flow Rate For PM10	m3/Mrn	1.13	1.12	1.18	1.14	1;12	1:11	1:12	1.21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	µg/m³	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2.5	µg/m³	37.5	41.6	47.5	51.6	40.2	47.5	43.5	39.2
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100
13.	Measured Concentration of PM10	µg/m³	60.5	64.8	65.8	71.5	75.8	69.5	70.2	65.5
14.	Permissible Limits of SO <sub>2</sub> *	hō/m <sub>3</sub>	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	15.2	11,5	10.6	15.8	14.5	13.5	16.5	14.2
16.	Permissible Limits of NO₂ *	pg/m³	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	25.3	21.5	24.5	23 6	20.9	23.5	24,5	25.9

Instrument Used: Ecolech make (1) RDS, APM - 217BL, (2) Gaseous Polliutanis Sampler- AAS-109, (3) Ecolech PM2 5 Sampler- AAS 127

Calibration Done on: 13/01/2024

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Ref. No.: 919/05/2024-25

Date: 31/05/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: MAY 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit		Clinker Silo (West)						
01.	No. of Week	(66)		1		2		3		4
02	Date & Time Starting of Monitoring	=1	06/05/2024 12:00	07/05/2024 12:15	13/05/2024 12:30	14/05/2024 12:45	20/05/2024 13:00	21/05/2024 13:15	27/05/2024 13:15	28/05/2024 13:30
03	Date & Time - Ending of Monitoring	=	07/05/2024 12:00	08/05/2024 12:15	14/05/2024 12:30	15/05/2024 12:45	21/05/2024 13:00	22/05/2024 13:15	28/05/2024 13:15	29/05/2024 13:30
04.	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	1	NE	NE	SE	SÉ	NE	SE	\$E	SE
06.	Wind Speed Velocity	Km/Hr	2 to 13	1 to 13	2 to 12	2 to 16	3 to 16	1 to 16	3 to 15	3 to 14
07.	Average Flow Rate For PM25	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08.	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1,12	1.11	1.12	1.21
09.	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	hã/m <sub>3</sub>	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2.5	µg/m³	35 2	41.6	44.8	51.3	39.6	33.8	36 8	42.6
12.	Permissible Limits of PM10 *	hô <sub>l</sub> w <sub>3</sub>	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	hð <sub>l</sub> m <sub>3</sub>	61.5	58.3	62.8	69.2	63.5	51.8	67.5	68.2
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15:	Measured Concentration of SO <sub>2</sub>	µg/m³	12.6	13.5	15.2	16.2	11.5	15.4	16.5	13.5
16.	Permissible Limits of NO <sub>2</sub> *	hā/m³	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	21.4	23 6	25.4	22.3	21.6	23.6	24.8	22.5

Instrument Used. Ecolech make (1) RDS. APM - 217BL, (2) Gaseous Pollutants Sampler- AAS-109, (3)Epotech PM2.5 Sampler- AAS-127

Galbration Done on : 13/01/2924

Royal Environment Auditing & Consultancy Service, Rajkot



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Date: 01/07/2024

#### REAS/ACIL/2024-25/06-01

To:

M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Kind attn.: Mr. Kalubhai Goyani

Sub.: Report of Stack Emission Analysis, Waste water analysis.

Ref.: Our visit at AWL Plant is on June 2024.

Dear Sir.

Please find enclosed following analysis report in one copy:

1.	Report of Waste Water Analysis	); <u>+</u>	01 Samples
2.	Report of Stack Emission Monitoring	79	09 Locations
3.	Report of National Ambient Air Quality Monitoring		32 Locations
4.	Report of Drinking Water Analysis	1	01 Samples
5.	Report of Ambient Noise Level Monitoring	<b>#</b>	08 Samples
6.	Report of Work Place Noise Level Monitoring	100	06 Samples
7.	Report of Fugitive Emission		05 Samples

Thanking you,

Yours faithfully,

Royal Environment Auditing & Consultancy Service,

Digvijay Jadeja

Encl: As above.





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Ref. No.: 102/06/2024-25

Date: 01/07/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 1
01	Date of Sampling		27/06/2024
02	Time of sampling	Hr.	11:15
03	Stack Attached to	-	Cement Mill
04	Air Pollution Control Measures		Bag Filter
05	Stack Height	Meter	70
06	Stack Diameter	Meter	
07	Stack Temperature	°C	80
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	24
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Royal Environment Auditing & Consultancy Service



Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 103/06/2024-25

Date: 01/07/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 2
01	Date of Sampling		18-06-2024
02	Time of sampling	Hr.	11:45
03	Stack Attached to	222	Packing Plant (1 No.)
04	Air Pollution Control Measures	***	Bag Filter
05	Stack Height	Meter	50
06	Stack Diameter	Meter	
07	Stack Temperature	°C	60
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	18
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024





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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 104/06/2024-25 Date: 01/07/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Piot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 3
01	Date of Sampling		27/06/2024
02	Time of sampling	Hr.	12:00
03	Stack/vent Attached to	-	Conveyor belt L11BC1 Vent
04	Air Pollution Control Measures	220	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	62
08	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	40
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ррт	50
17	Measured Concentration of NO <sub>x</sub>	ррm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024





Royal Environment Auditing & Consultancy Service



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 105/06/2024-25

Date: 01/07/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 4
01	Date of Sampling		27/06/2024
02	Time of sampling	Hr.	12:30
03	Stack/Vent Attached to	STEENS.	Conveyor belt 531BC1 tranfer point Vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/ vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	63
80	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	21
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	30
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024



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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 380 005. Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 106/06/2024-25

Date: 01/07/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 5
01	Date of Sampling	_	27/06/2024
02	Time of sampling	Hr.	14:00
03	Stack/vent Attached to		Conveyor belt K11BC1 tranfer point vent
04	Air Pollution Control Measures	577.5	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	63
80	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	6.9
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	43
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024



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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 107/06/2024-25 Date: 01/07/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 6
01	Date of Sampling		27/06/2024
02	Time of sampling	Hr.	14:45
03	Stack/vent Attached to	-	Conveyor belt 491BC1 tranfer point
04	Air Pollution Control Measures	550	Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	64
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.3
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	41
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	mqq	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on . 14/01/2024





Royal Environment Auditing & Consultancy Service



Ref. No.: 108/06/2024-25

Date: 01/07/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 7
01	Date of Sampling		27/06/2024
02	Time of sampling	Hr.	15:00
03	Stack/Vent Attached to		Conveyor belt 491BC2 tranfer point
04	Air Pollution Control Measures	223	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/vent Diameter	Meter	
07	Stack/ Vent Temperature	°C	65
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.4
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	34
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Royal Environment Auditing & Consultancy Service







Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@tive.com ■ admin@royalconsultancy.com

Ref. No.: 109/06/2024-25

Date: 01/07/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 8
01	Date of Sampling		27/06/2024
02	Time of sampling	Hr.	14:45
03	Stack/Vent Attached to	-	Conveyor belt K11BC2
04	Air Pollution Control Measures		Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	62
08	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.5
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	40
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	pprn	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024





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Ref. No.: 110/06/2024-25

Date: 01/07/2024

### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Piot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	CS-01 Vent	CS-02 Vent
01	Date of Sampling		27/06/2024	27/06/2024
02	Time of sampling	Hr.	15:45	16:30
03	Stack/Vent Attached to	.ana	Cement Silo -1	Cement Silo -2
04	Air Pollution Control Measures		Bag Filter	Bag Filter
05	Stack/Vent Height	Meter	30	30
06	Stack/Vent Diameter	Meter		
07	Stack/Vent Temperature	°C	60	64
08	Ambient Temperature	°C	30	31
09	Average Velocity of Flue Gases	m/Sec.	7.6	8.2
10	Isokinetic flow rate for P.M. Sampling	LPM	22	23
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm³	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	27	32
14	Permissible limits for SO <sub>2</sub>	ppm	100	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

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Ref. No.: 111/06/2024-25

Date: 01/07/2024

### **WORK ZONE NOISE LEVEL MEASUREMENT**

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 18/06/2024

		Results in dB(A)				
Sr. No.	Location of Sampling	Day Time 06:30am to 10:30pm	Night Time 10:30pm to 06:30am			
Permissi	ble Limits for 08:00 Hrs.	90.0 dB(A)				
01,	Main Compressor Room	82.3	74.5			
02.	Cement Mill	81.6	73.6			
03.	Fly Ash Compressor Room	80.3	72.3			

Instruments used: Sound level meter, Model: SL 4030 (Lutron)

Range : A - 30 to 80 dB, B-50 to 100 dB,C-80 to 130 dB. Calibration is done on : 17/05/2024

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Ref. No.: 112/06/2024-25

Date: 01/07/2024

# AMBIENT NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 18/06/2024

Sr. No.	Location of Sampling	Results in dB(A) (Day Time) 6:30am to 10:30pm	Results in dB(A) (Night Time) 10:30pm to 6:30am
Permissi	ble Limits	75.0	70.0
01.	Security Main gate (East)	69.3	61.2
02.	Packing plant (South)	70.2	64.2
03.	Cement mill (North)	71.3	65.8
04	Clinker Silo (West)	73.2	64.2

#### **CPCB Standards**

Area	Category of Area / Zone	Limit in dB(A) Leq.				
Code	outegoly of Area : 2011	Day Time	Night Time			
Α	Industrial Area	75.0	70.0			
В	Commercial Area	65.0	55.0			
С	Residential Area	55.0	45.0			
D	Silence Zone	50.0	40.0			

Instruments used: Sound level meter, Model: SL 4030 (Lutron) Range: A - 30 to 80 dB, B-50 to 100 dB,C-80 to 130 dB.

Calibration is done on: 17/05/2024



5

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Ref. No.: 113/06/2024-25

Date: 01/07/2024

#### REPORT OF FUGITIVE EMISSION ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch,

Test Method

: As per IS Standards - 5182\_23/4/6

Sr. No.	Particulars	Unit	Location No. 1	Location No. 2	Location No. 3	Location No. 4	Location No. 5
01.	Location of Sampling	940	Clinker shed	Gypsum shed	Packing plant	Truck loading/ Parking area	Cement mill
02	Date of sampling		27/06/2024	27/06/2024	27/06/2024	27/06/2024	27/06/2024
03.	Time of sampling	Hr	09:30	10:30	11:30	12:30	12:00
04.	Duration of Sampling	Min.	480	480	480	480	480
05.	Dominant Wind Direction (From)	<del></del> 2	sw	sw	sw	sw	sw
06.	Average Wind Speed	Km/Hr	3 to 18	4 to 20	2 to 11	3 to 20	5 to 21
07.	Flow rate during sampling	m3/Hr	1.0	1.0	1.0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2	0.2
09.	Permissible Limits of SPM *	μg/m³	5000	5000	5000	5000	5000
10:	Measured Concentration of SPM	µg/m³	3125	4021	4458	4621	4128

Instrument used: Envirotech make (HVS), Model No. APM-430BL, Gaseous Sampling Kit,

Calibration done on : 01/01/2024

\* Permissible limits of fugitive emission based on CPC8 Guidelines

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Ref. No.: 114/06/2024-25

Date: 01/07/2024

# **REPORT OF EFFLUENT ANALYSIS**

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample Collection: Sewage Treatment Plant

Date of Sampling: 18/06/2024

Sr. No	. Parameters	Unit	Permissible Limit*	STP O/L
01.	рН	mg/l	6.5-9	7.6
01.	Total Suspended Solids	mg/l	<100	45
02.	B.O.D. (3 day's at 27 °C)	mg/l	<30	23.6
03.	Fecal Coliform	MPN	<1000MPN/100ml	0.5

<sup>\*</sup> Permissible limit is only applicable to STP O/L (Treated Water)

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Ref. No: 115/06/2024-25

Date: 01/07/2024

#### REPORT OF DRINKING WATER SAMPLES

Name of company: M/s. Adam! Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample: Drinking Water (Admin Office)

Date of Sampling :18/06/2024

Sr. No.	Parameters	Unit	Acceptable Limits(*)	Results
01.	PH	pH Units	6.5 to 8.5	7.36
02.	Colour	Hazen	5	Colourless
03.	Turbidity	NTU	1	< 1.0
04.	Total Dissolved Solids	mg/l	500	120
05.	Total Suspended Solids	mg/l		12
<b>06</b> .	Total Solids	mg/l		135
07.	Chlorides	mg/l	250	50
08.	Sulphates	mg/l	200	11.9
09.	Total Hardness (As CaCO <sub>3</sub> )	mg/l	200	65.6
10.	Calcium (as Ca)	mg/l	75	20.2
11.	Magnesium (as Mg)	mg/l	30	5.9
12.	Total Alkalinity	mg/l	200	30
13.	Nitrates	mg/l	45	4.3
14.	Flouride	mg/l	1.0	0.05
15.	E-Coli	MPN/100ml	Absent	Absent

(\*) Acceptable Limit as per IS 10500 : 2012, Drinking Water Specification

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Ref. No.: 116/06/2024-25

Date: 01/07/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: JUNE 2024

Name of company: M/s. Adani Cement Industries Limited.

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit	Init Nr. Main Security Main gate (East)							
01.	No. of Week	-		1		2		3		4
02	Date & Time Starting of Monitoring	3.41	03/06/2024 11:30	04/05/2024 11:45	10/06/2024 12:00	11/06/2024 12:15	17/06/2024 12:30	18/06/2024 12:45	24/06/2024 13:00	25/06/2024 13:15
03.	Date & Time - Ending of Monitoring	-	04/06/2024 11:30	05/06/2024 11:45	11/06/2024 12:00	12/06/2024 12:15	18/06/2024 12:30	19/06/2024 12:45	25/06/2024 13:00	26/06/2024 13:15
04_	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	·=	NE	NE	SE	SE	NE	SE	SE	SE
06.	Wind Speed Velocity	Km/Hr.	2 to 15	3 to 17	2 to 11	2 to 14	4 to 18	2 to 13	3 to 12	2 to 14
07.	Average Flow Rate For PM2.5	m3/Hr	1.0	1,0	1.0	1.0	1.0	1.0	1.0	1.0
08.	Average Flow Rate For PM10	m3/Min.	1.13	1.12	1.18	1.14	1.12	1.11	1,12	1,21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0,2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	µg/m³	60	60	60	60	60	60	60	60
11,	Measured Concentration of PM2.5	hâ/w <sub>3</sub>	30.2	32.5	34.5	29.3	29.1	32.5	34.5	39.1
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	63.1	65.8	62.3	69.1	72.1	65.8	73.0	65.8
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	hā/w <sub>3</sub>	11.2	12.6	14.5	13.6	16.5	17.5	11.5	13.5
16.	Permissible Limits of NO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	24.6	22.6	19.6	17.5	18.6	20.0	20.3	24.1

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polllutants Sampler- AAS-109, (3) Ecotech PM2.5 Sampler- AAS-127

Calibration Done on: 13/01/2024

Rajkot



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Plot No. 19 & 20, B/s. The North Star Nest School, Massorm School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 117/06/2024-25

Date: 01/07/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: JUNE 2024

Name of company: M/s. Adani Cement Industries Limited.

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit	Unit Packing Plant (South)							
01.	No. of Week	<u></u>		1		2		3	4	ļ
02	Date & Time Starting of Monitoring	157	03/06/2024 12:30	04/06/2024 12:45	10/06/2024 13:00	11/06/2024 13:15	17/06/2024 14:30	18/06/2024 14:45	24/06/202413: 14:00	25/06/2024 14:15
03.	Date & Time - Ending of Monitoring	-	04/06/2024 12:30	05/06/2024 12:45	11/06/2024 13:00	12/06/2024 13:15	18/06/2024 14:30	19/06/2024 14:45	25/06/2024 14.00	26/06/2024 14:15
04	Duration of Sampling	Min.	1440	1440	1440	1440	1440	1440	1440	1440
05.	Dominant Wind Direction (From)	-	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr	2 to 15	3 to 17	2 to 11	2 to 14	4 to 18	2 to 13	3 to 12	2 to 14
07.	Average Flow Rate For PM2.5	m3/Hr,	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08.	Average Flow Rate For PM10	m3/Min	1,13	1.12	1.18	1.14	1.12	1,11	1.12	1,21
09.	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	pg/m³	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2.5	µg/m³	40.2	38.6	44.8	50,0	38.6	34.8	43.2	47.2
12.	Permissible Limits of PM10 *	μg/m³	100	100	100	100	100	100	100	100
13.	Measured Concentration of PM10	h8\m <sub>3</sub>	62.3	60.5	72.5	68.6	58.3	60.2	64.8	70.2
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	13.5	11.5	14.5	16.9	12.8	14.3	15.8	14.3
16.	Permissible Limits of NO <sub>2</sub> *	lug/m³	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	19.5	22.1	23.6	21.5	18.3	16.8	21.5	23.5

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polllutants Sampler- AAS-109, (3)Ecolech PM2.5 Sampler- AAS 127

Calibration Done on : 13/01/2024

5

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Ref. No.: 18/06/2024-25

Date: 01/07/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: June 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit				Cement n	nill (North)			
Q1.	No. of Week	277.0	1		7	3				4
02	Date & Time Starting of Monitoring	=	06/06/2024 09:15	07/06/2024 09:25	13/06/2024 09:45	14/06/2024 09:55	20/06/2024 10:15	21/06/2024 10:25	27/06/2024 12:15	28/06/2024 12:30
03	Date & Time - Ending of Monitoring	=	07/06/2024 09:15	08/06/2024 09:25	14/06/2024 09:45	15/06/2024 09:55	21/06/2024 10:15	22/06/2024 10:25	28/06/2024 12:15	29/06/2024 12:30
04.	Duration of Sampling	Mín	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	<b>=</b> :	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr	2 to 13	1 to 13	2 to 12	2 to 16	3 to 16	1 to 16	3 to 15	3 to 14
07.	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1_0
08.	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1,14	1.12	1.11	1.12	1,21
09.	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5	µg/m³	60	60	60	60	60	60	60	60
11,	Measured Concentration of PM2.5	µg/m³	37.5	41.6	47.5	51.6	40.2	47.5	43.5	39.2
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100
13.	Measured Concentration of PM10	µg/m³	60.5	64.8	65.8	71,5	75.8	69.5	70.2	65.5
14.	Permissible Limits of SO₂ *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	15.2	11.5	10.6	15.8	14.5	13.5	16.5	14.2
16.	Permissible Limits of NO <sub>2</sub> <sup>3</sup>	µg/m³	80	80	80	80	80	80	80	80
17	Measured Concentration of NO₂	µg/m³	25.3	21.5	24.5	23.6	20.9	23.5	24.5	25.9

Instrument Used: Ecofech make (1) RDS, APM - 217BL, (2) Gaseous Polliutants Sampler- AAS-109, (3) Ecofech PM2 5 Sampler- AAS 127

Calibration Done on : 13/01/2024

Raikot



Royal Environment Auditing & Consultancy Service, Rajkot



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No 319/06/2024-25

Date: 01/07/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: JUNE 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit	Clinker Silo (West)							
01.	No. of Week	-	1		2		3		4	
02	Date & Time Starting of Monitoring	=:	06/06/2024 12:00	07/06/2024 12:15	13/06/2024 12:30	14/06/2024 12:45	20/06/2024 13.00	21/06/2024 13:15	27/06/2024 13:15	28/06/2024 13:30
03	Date & Time - Ending of Monitoring	=	07/06/2024 12:00	08/06/2024 12:15	1 <b>4/06/2024</b> 12:30	15/06/2024 12:45	21/06/2024 13:00	22/06/2024 13:15	28/06/2024 13:15	29/06/2024 13:30
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05.	Dominant Wind Direction (From)	24	NE	NE	SE	ŞE	NE	SE	SE	\$E
06	Wind Speed Velocity	Km/Hr	2 to 13	1 to 13	2 to 12	2 to 16	3 to 16	1 to 16	3 to 15	3 to 14
07.	Average Flow Rate For PM2.5	m3/Hr	1,0	10	10	1.0	1.0	1.0	1.0	1.0
08	Average Flow Rate For PM10	m3Min.	1.13	1,12	1.18	1.14	1.12	1.11	1,12	1.21
09	Average Flow Rate for Gasious	LPM	0,2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5*	hð <sub>i</sub> m <sub>3</sub>	60	60	60	60	60	60	60	60
11,	Measured Concentration of PM2.5	µg/m²	35 2	41.6	44.8	51.3	39.6	33.8	36.8	42.6
12.	Permissible Limits of PM10 *	halpun <sub>3</sub>	100	100	100	100	100	100	100	100
13,	Measured Concentration of PM10	µg/m³	61.5	58.3	62.8	69.2	63.5	51.8	67.5	68.2
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15.	Measured Concentration of SO <sub>2</sub>	µg/m³	12.6	13.5	15.2	16.2	11.5	15.4	16.5	13.5
16.	Permissible Limits of NO <sub>2</sub> *	h8\w <sub>3</sub>	80	80	80	80	80	80	80	80
17.	Measured Concentration of NO <sub>2</sub>	hð <sub>l</sub> w <sub>3</sub>	21.4	23.6	25.4	22.3	21.6	23.6	24.8	22.5

Instrument Used: Ecotech make [1] RDS, APM - 217BL, (2) Gaseous Polllutants Sampler- AAS-109, (3) Ecotech PM2.5 Sampler- AAS-127.

Calibration Done on : 13/01/2024

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Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@tive.com = admin@royalconsultancy.com

Date: 01/08/2024

REAS/ACIL/2024-25/06-01

To:

M/s. Adani Cement Industries Limited, Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Kind attn.: Mr. Kalubhai Goyani

Sub.: Report of Stack Emission Analysis, Waste water analysis.

Ref.: Our visit at AWL Plant is on July2024.

Dear Sir,

Please find enclosed following analysis report in one copy:

1,	Report of Waste Water Analysis	:	01 Samples
2.	Report of Stack Emission Monitoring	:	10 Locations
3.	Report of National Ambient Air Quality Monitoring	:	40 Locations
4.	Report of Drinking Water Analysis	:	01 Samples
5	Report of Ambient Noise Level Monitoring	:	04 Samples
6.	Report of Work Place Noise Level Monitoring	:	03 Samples
7.	Report of Fugitive Emission	:	05 Samples

Thanking you,

Yours faithfully.

Royal Environment Auditing & Consultancy Service, ket

Digvijay Jadeja

Encl: As above.



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Ref: No.: 202/07/2024-25

Date: 01/08/2024

### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 1
01	Date of Sampling		12/07/2024
02	Time of sampling	Hr.	12:00
03	Stack Attached to	W55	Cement Mill
04	Air Pollution Control Measures	<u> </u>	Bag Filter
05	Stack Height	Meter	70
06	Stack Diameter	Meter	
07	Stack Temperature	°C	68
80	Ambient Temperature	°C	29
09	Average Velocity of Flue Gases	m/Sec.	8.1
10	sokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM	mg/Nm³	28
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 203/07/2024-25

Date: 01/08/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 2
01	Date of Sampling		12-07-2024
02	Time of sampling	Hr	14:00
03	Stack Attached to	-555	Packing Plant (1 No.)
04	Air Pollution Control Measures		Bag Filter
05	Stack Height	Meter	50
06	Stack Diameter	Meter	222
07	Stack Temperature	°C	56
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.3
10	Isokinetic flow rate for P.M. Sampling	LPM	19
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	21
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Royal Environment Auditing & Consultancy Service





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 006. Ph.: +91 9099919954 = E-mail: royalenvironment@tive.com = admin@royalconsultancy.com

Ref. No.: 204/07/2024-25

Date: 01/08/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 3
01	Date of Sampling		12/07/2024
02	Time of sampling	Hr.	14:30
03	Stack/vent Attached to	ST0:	Conveyor belt L11BC1 Vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	222
07	Stack/Vent Temperature	°C	52
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	6.8
10	Isokinetic flow rate for P.M. Sampling	LPM	19
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	34
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@tive.com = admin@royalconsultancy.com

Ref. No.: 205/07/2024-25

Date: 01/08/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited.

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch,

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 4
01	Date of Sampling		12/07/2024
02	Time of sampling	Hr,	14:55
03	Stack/Vent Attached to	(. <del>121.</del> )	Conveyor belt 531BC1 tranfer point Vent
04	Air Pollution Control Measures	dd mal law	Bag Filter
05	Stack/ vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	58
80	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.8
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	38
14	Permissible limits for SO <sub>2</sub>	ррт	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No : 206/07/2024-25 Date: 01/08/2024

### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack- 5
01	Date of Sampling		20/07/2024
02	Time of sampling	Hr.	12:00
03	Stack/vent Attached to	7443	Conveyor belt K11BC1 tranfer point vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	57
08	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	21
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	40
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Royal Environment Auditing & Consultancy Service





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 380 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admirt@age/ccms/t/brog.com4

### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 6
01	Date of Sampling		20/07/2024
02	Time of sampling	Hr.	12:30
03	Stack/vent Attached to	2227	Conveyor belt 491BC1 tranfer point
04	Air Pollution Control Measures	CALL	Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	522
07	Stack/Vent Temperature	°C	64
80	Ambient Temperature	°C	<b>3</b> 1
09	Average Velocity of Flue Gases	m/Sec.	7.6
10	Isokinetic flow rate for P.M. Sampling	LPM	21
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/ <b>N</b> m³	36
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Rajkot

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on . 14/01/2024

Royal Environment Austring & Consultancy Service



# Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.

Ph.: +91 9099919954 • E-mail: royalenvironment@live.com • admin@royalconsultancy.com

Ref. No.: 208/07/2024-25

Date: 01/08/2024

### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack- 7
01	Date of Sampling		20/07/2024
02	Time of sampling	Hray	14:00
03	Stack/Vent Attached to	<b>100</b>	Conveyor belt 491BC2 tranfer point
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/vent Diameter	Meter	227
07	Stack/ Vent Temperature	°C	59
80	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	6.9
10	Isokinetic flow rate for P.M. Sampling	LPM	19
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	42
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Royal Environment Auditing & Consultancy Service





Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 209/07/2024-25

Date: 01/08/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 8
01	Date of Sampling		20/07/2024
02	Time of sampling	Hr.	14:45
03	Stack/Vent Attached to	mine.	Conveyor belt K11BC2
04	Air Pollution Control Measures	2 <del>00</del> 0	Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	63
80	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	8.1
10	Isokinetic flow rate for P.M. Sampling	LPM	23
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	31
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ррm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

Royal Environment Auditing & Consultancy Service

Rajkot Rajkot



Plot No. 19 & 20, B/s, The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 210/07/2024-25

Date: 01/08/2024

### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal: Vagra, Dist: Bharuch.

Test Method

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	CS-01 Vent	CS-02 Vent
01	Date of Sampling		12/07/2024	20/07/2024
02	Time of sampling	Hraz	12:45	11:00
03	Stack/Vent Attached to	202	Cement Silo -1	Cement Silo -2
04	Air Pollution Control Measures		Bag Filter	Bag Filter
05	Stack/Vent Height	Meter	30	30
06	Stack/Vent Diameter	Meter		
07	Stack/Vent Temperature	°C	62	58
80	Ambient Temperature	°C	31	32
09	Average Velocity of Flue Gases	m/Sec.	7.2	7.6
10	Isokinetic flow rate for P.M. Sampling	LPM	20	21
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm³	150	150
13	Measured Concentration of PM	mg/Nm <sup>3</sup>	35	38
14	Permissible limits for SO <sub>2</sub>	ppm	100	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

Royal Environment Auditing & Consultancy Service





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 211/07/2024-25

Date: 01/08/2024

# WORK ZONE NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P.

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 20/07/2024

		Results in dB(A)						
Sr. No.	Location of Sampling	Day Time 06:30am to 10:30pm	Night Time 10:30pm to 06:30am					
Permissi	ble Limits for 08:00 Hrs.	90.0 dB(A)						
01.	Main Compressor Room	83.1	70.1					
02,	Cement Mill	80.2	68.1					
03.	Fly Ash Compressor Room	78.2	71.1					

Instruments used: Sound level meter, Model: VSLM-932 (Vaibhav)

Range A - 30 to 80 dB, B-50 to 100 dB,C-80 to 130 dB.

Calibration is done on : 17/05/2024

Royal Environment Auditing & Consultancy Service



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Read, Mota Maya, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 212/07/2024-25

Date: 01/08/2024

# AMBIENT NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 20/07/2024

Sr. No.	Location of Sampling	Results in dB(A) (Day Time) 6:30aπ to 10:30pm	Results in dB(A) (Night Time) 10:30pm to 6:30am
Permiss	ible Limits	75.0	70.0
01.	Security Main gate (East)	67.1	60.1
02.	Packing plant (South)	71.2	62,2
03.	Cement mill (North)	72.1	66,1
04.	Clinker Silo (West)	69.2	61.2

#### **CPCB Standards**

Area	Category of Area / Zone	Limit in	dB(A) Leq.
Code		Day Time	Night Time
Α	Industrial Area	75.0	70.0
В	Commercial Area	65.0	55.0
Ç	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Instruments used : Sound level meter, Model : VSLM-932 (Vaibhav)

Range: A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Calibration is done on: 17/05/2024

Royal Environment Auditing & Consultancy Service





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@five.com = admin@royalconsultancy.com

Ref. No.: 213/07/2024-25

Date: 01/08/2024

#### REPORT OF FUGITIVE EMISSION ANALYSIS

Name of company: M/s. Adani Cement Industries Limited.

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 5182\_23/4/6

		_					
Sr. No.	Particulars	Unit	Location No. 1	Location No. 2	Location No. 3	Location No. 4	Location No. 5
01.	Location of Sampling	<del>5</del> 78	Cfinker shed	Gypsum shed	Packing plant	Truck loading/ Parking area	Cement mill
02:	Date of sampling	523	20/07/2024	20/07/2024	20/07/2024	20/07/2024	20/07/2024
03	Time of sampling	Hr	09:00	10:45	11:00	12:00	10:00
04	Duration of Sampling	Min	480	480	480	480	480
05	Dominant Wind Direction (From)	-	sw	sw	sw	sw	sw
06	Average Wind Speed	Km/Hr	1 to 18	4 to 20	2 to 11	2 to 20	2 to 21
07	Flow rate during sampling	m3/Hr	1.0	1.0	1,0	1.0	1.0
08.	Average flow rate for Gas sampling	LPM	0.2	0 2	0.2	0.2	0.2
09.	Permissible Limits of SPM *	μg/m³	5000	5000	5000	5000	5000
10	Measured Concentration of SPM	µg/m³	2875	3012	3214	3412	3715

Instrument used : Envirotech make (HVS), Model No. APM-430BL, Gaseous Sampling Kit,

Calibration done on : 01/01/2024

\* Permissible limits of fugitive emission based on CPCB Guidelines

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Ref. No.: 214/07/2024-25

Date: 01/08/2024

### REPORT OF EFFLUENT ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P.

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample Collection : Sewage Treatment Plant

Date of Sampling :12/07/2024

Sr. No.	Parameters	Unit	Permissible Limit*	STP O/L
01.	рН	mg/l	6.5-9	7.2
01.	Total Suspended Solids	mg/l	<100	40
02.	B.O.D. (3 day's at 27 °C)	mg/l	<30	26.1
03.	Fecal Coliform	MPN	<1000MPN/100ml	0.9

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<sup>\*</sup> Permissible limit is only applicable to STP O/L (Treated Water)



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Ref. No: 215/07/2024-25

Date: 01/08/2024

### REPORT OF DRINKING WATER SAMPLES

Name of company: M/s. Adami Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample: Drinking Water (Admin Office)

Date of Sampling: 12/07/2024

Sr. No.	Parameters	Unit	Acceptable Limits(*)	Results
01.	pH	pH Units	6.5 to 8.5	7.21
02.	Colour	Hazen	5	Colourless
03.	Turbidity	NTU	1	< 1.0
04.	Total Dissolved Solids	mg/l	500	135
05.	Total Suspended Solids	mg/		18
06.	Total Solids	mg/	***	145
07.	Chlorides	mg/	250	56
08	Sulphates	rng/l	200	13.2
09.	Total Hardness (As CaCO <sub>3</sub> )	mg/l	200	62.2
10.	Calcium (as Ca)	mg/l	75	24.1
11,	Magnesium (as Mg)	mg/J	30	6.2
12.	Total Alkalinity	mg/l	200	35
13.	Nitrates	mg/l	45	3.8
14.	Flouride	mg/l	1.0	0.07
15.	E-Coli	MPN/100m!	Absent	Absent

(\*) Acceptable Limit as per IS 10500 : 2012, Drinking Water Specification

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Ref No : 216/07/2024-25

Date 01/08/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: JULY 2024

Name of company: M/s. Adam Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 176/P, 179/P, 187/P to 191/P of Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S No	Particulars	Unit				Nr. N	lain Security	/ Main gate (	East)			
01.	No. of Week	75.0		1		2	:	3		4		5
D2	Date & Time Starting of Monitoring	=:	01/07/2024 08:30	02/07/2024 08:45	08/07/2024 08:45	09/07/2024 09:00	15/07/2024 09:15	16/07/2024 09:30	22/07/2024 09:45	23/07/2024 10:00	29/07/2024 10:45	30/07/2024 11:00
03	Date & Time - Ending of Monitoring	77/	02/07/2024 08:30	03/07/2024 08:45	09/07/2024 08:45	10/07/2024 09:00	16/07/2024 09:15	17/07/2024 09:30	23/07/2024 09:45	24/07/2024 10:00	30/07/2024 10:45	31/07/2024 11:00
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	En En	NE	NE	SE	SE	NE	SE	SE	SE	NE	SE
06.	Wind Speed Velocity	Km/Hr	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15	2 to 16	4 to 19	3 to 15
07.	Avorago Flow Rate For PM2.5	m3/Hr	1.0	1,0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
.80	Average Flow Rate For PM10	m3/Міп	1.13	1.12	1.18	1.14	1.12	1,11	1.12	1.21	1.16	1.11
09	Average Flow Rate for Gasious	LPM	02	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5*	hĝiw <sub>o</sub>	60	60	60	60	60	60	60	60	60	50
11.	Measured Concentration of PM2.5	hājw,	32.2	36.1	34.5	38.2	42 2	45.1	39 1	41.2	46.2	40 2
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	65.1	68.2	62.3	70.2	60 1	65.8	68 1	65.8	60.1	63.1
14.	Permissible Limits of SO <sub>2</sub> *	hāu.	80	80	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	13.2	14.2	16.2	11.2	12.2	18 1	12.2	16.2	18.2	13.1
16	Permissible Limits of NO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	22.1	20.2	18.2	24.2	26.1	21.2	22.3	19.2	21.2	23.2

Instrument Usod: Ecotoch make (1) RDS, APM - 217BL, (2) Gaseous Polllutants Sempler- AAS-109, (3)Ecotech PM2-5 sampler- AAS-177

Calibration Done on 13/01/2024

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Ref. No : 21//07/2024-25

Date: 01/08

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: JULY 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No. 136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch,

No	Particulars	Unit					Packing Pi	ant (South)				
01.	No. of Week		1			2		3		4		5
02	Date & Time Starting of Monitoring	÷	01/07/2024 08:45	02/07/2024 08:55	08/07/2024 09:00	09/07/2024 09:10	15/07/2024 09:30	16/07/2024 09:40	22/07/2024 10:00	23/07/2024 10:10	29/07/2024 11:15	30/07/2024 11 30
03	Date & Time - Ending of Monitoring	-	02/07/2024 08:45	03/07/2024 08:55	09/07/2024 09:00	10/07/2024 09:10	16/07/2024 09:30	17/07/2024 09:40	23/07/2024 10:00	24/07/2024 10:10	30/07/2024 11:15	31/07/2024 11:30
04.	Dutation of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
06	Dominant Wind Direction (From)	72	NE	NE	SE	SE	NE	SE	SE	SE	NE	SE
06.	Wind Spood Volacity	KmvHr	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15	2 to 16	4 to 19	3 to 15
07.	Average Flow Rate For PM2.5	m3A4r	1.0	1.0	1.0	10	1_0	1,0	1.0	1.0	1.0	1.0
GB.	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1.12	1.11	1,12	1.21	1.16	1.12
09)	Avorage Flow Rate for Gasious	LPM	0.2	02	0.2	02	0.2	0.2	02	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	haim,	60	60	60	60	60	60	60	60	60	60
11_	Measured Concentration of PM2.5	ha/w <sub>a</sub>	38.1	43.1	48.2	56.2	41.2	52.1	40.1	50 2	46 2	52.2
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	66.2	60.2	58.2	62.2	63.1	68 1	72.1	62 2	57.1	53.2
14.	Permissible Limits of SO <sub>7</sub> *	μg/m³	80	80	80	80	80	80	80	80	80	80
16	Mossured Concentration of SO <sub>2</sub>	pg/m²	12.2	14.2	16.2	18.1	13 2	15_1	13.2	17.2	18 2	13.2
16.	Permissible Limits of NO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	20,1	23.2	26 1	21.2	22.3	24_1	25.2	25.2	22.3	24.2

Instrument Used | Ecolech make (1) RDS, APM - 217BL, (2) Gaseous Politulants Sampler- AAS-109, (3)Ecotech PM2.5 Sampler- AAS 127

Calibration Done on: 13/01/2024

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Ref. No.: 1018/07/2024-25

Date: 01/08/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: JULY 2024

Name of company: M/s. Adami Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 175/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S No.	Particulars	Unit					Cement n	nill (North)				
01.	No. of Week	7.64	1		2			3		4		5
02	Date & Time Starting of Monitoring	ΥÆ	D1/07/2024 09:00	02/07/2024 09:10	08/07/2024 09:15	09/07/2024 09:25	15/07/2024 09:45	16/07/2024 09:55	22/07/2024 10:15	23/07/2024 10:25	29/07/2024 12:15	30/07/2024 12:30
D3	Date & Time - Ending of Monitoring	=	02/07/2024 09:00	03/07/2024 09:10	09/07/2024 09:15	10/07/2024 09:25	16/07/2024 09:45	17/07/2024 09:55	23/07/2024 10:15	24/07/2024 10:25	30/07/2024 12:15	31/07/2024 12:30
01	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	=	NE	NE	SE	ŞE	NE	SE	SE	SE	NE	SE
06	Wind Speed Valority	Km/I lir	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15	2 to 16	4 to 19	3 to 15
01	Avorage How Rate For IPM2.5	m3/I tr	1_0	1.0	1,0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21	1.16	1.12
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	02	0.2	0.2
10	Permissible Limits of PM2.5 *	μg/m³	60	60	60	60	60	60	60	60	60	60
11	Measured Concentration of PM2.5	µg/m³	38.2	46.2	40 2	43 2	49.1	37 2	39.1	41.2	45.2	42.3
12	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	62.2	67.1	63.2	72.2	62.2	68 1	61.2	71.2	59.3	62.1
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	08	80	80	80
15	Measured Concentration of SO <sub>2</sub>	hô <sub>/w</sub> ,	13.2	14.2	12.2	16.2	11.2	15 1	17.2	14.2	13.2	16.2
16. i	Permissible Limits of NO <sub>2</sub> *	μg/m³	80	80	80	80	В0	80	80	80	80	80
17	Measured Concontration of NO <sub>2</sub>	µg/m³	23.2	20.1	21.2	24.2	23 1	26.1	25 1	21_1	242	26.1

Instrument Used: Ecotech make [1] RDS, APM - 217BL, (2) Gaseous Polilutants Sampler-AAS-109, (3) Ecotoc PM2-5 Sampler AAS-109

Calibration Done on: 13/01/2024

Royal Environment Auditing & Consultancy Service, Rajkot

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Ref. No : 1019/07/2024-25

Date: 01/08/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: JULY 2024

Name of company: M/s. Adam! Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Particulars	Unit					Clinker S	ilo (West)				
No. of Week	7 (	1			2	3	3	72	4		5
Date & Time Starting of Monitoring	=	01/07/2024	02/07/2024 11/45	08/07/2024 12:00	09/07/2024 12:15	15/07/2024 12:30	16407/2024 12:45	22/07/2024 13:00	23/07/2024 13:15	29/07/2024 13:15	30/07/2024 13:30
Date & Time - Ending of Monitoring	=	02/07/2024 11:30	03/07/2024 11:45	09/07/2024 12:00	10/07/2024 12:15	16/07/2024 12:30	17/07/2024 12:45	23/07/2024 13:00	24/07/2024 13:15	30/07/2024 13:15	31/07/2024 13:30
Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
Dominant Wind Direction (From)	(23	NE	NE	SE	SE	NE	SE	SE	SE	NE	SE
Wind Speed Velocity	Kmirin	2 to 13	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15	2 to 16	4 to 19
Avenue Flow Rate For PM2.5	m3/Hz	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21	1,16	1.12
Avertige Flow Rate for Gasious	II'M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Permissible Limits of PM2.5 *	µg/m²	60	60	60	60	60	60	60	60	60	60
Mossurod Concentration of PM2 5	ug/m²	41.2	38.2	46.1	52.2	40.1	37.2	43.2	29.1	30.1	36.2
Permissible Limits of PM10 *	pg/m²	100	100	100	100	100	100	100	100	100	100
Measured Concentration of PM10	hā <sub>m</sub> ,	62.2	54.2	64.1	66.2	68.2	70.1	74.2	63.2	68.1	58.1
Permissible Limits of SO <sub>2</sub> *	pg/m³	80	80	80	80	80	80	80	80	80	80
Measured Concentration of SO <sub>2</sub>	ugmi	13.2	14.1	16.2	11.2	12.1	17.2	15.2	12.2	14.1	16.2
Permissible Limits of NO <sub>2</sub> *	μg/m²	80	80	80	80	80	80	80	80	80	80
Measured Concentration of NO <sub>2</sub>	hāyu <sub>r</sub>	23.2	20.1	19.1	26.1	24.2 .	21.2	25.2	20.2	24.1	27.2
	No. of Week  Date & Time Starting of Monitoring  Date & Time - Ending of Monitoring  Duration of Sampling  Dominant Wind Direction (From)  Wind Speed Velocity  Average Flow Rate For PM2.5  Average Flow Rate for Gasious  Permissible Limits of PM2.5  Measured Concentration of PM10  Permissible Limits of SO <sub>2</sub> Measured Concentration of SO <sub>2</sub> Permissible Limits of NO <sub>2</sub> Permissible Limits of NO <sub>2</sub> Permissible Limits of NO <sub>2</sub>	No. of Week  Date & Time Starting of Monitoring  Date & Time - Ending of Monitoring  Duration of Sampling  Min.  Dominant Wind Direction (From)  Wind Speed Velocity  Average Flow Rate For PM2.5  Average Flow Rate For PM10  Monitoring Flow Rate for Gasious  Permissible Limits of PM2.5  Permissible Limits of PM10  Permissible Limits of PM10  Permissible Limits of PM10  Permissible Limits of PM10  Permissible Limits of SO2  Permissible Limits of SO2  Permissible Limits of NO2  Permissible Limits of NO2  Permissible Limits of NO2  Permissible Limits of NO2	No. of Week  Date & Time Starting of Monitoring  Date & Time - Ending of Monitoring  Date & Time - Ending of Monitoring  Duration of Sampling  Min. 1440  Dominant Wind Direction (From)  NE  Wint Speed Velocity  Kmith: 2 to 13  Average Flow Rate For PM2.5  Average Flow Rate For PM10  Average Flow Rate for Gasious  Permissible Limits of PM2.5  Permissible Limits of PM10  Measured Concentration of PM10  Measured Concentration of PM10  Permissible Limits of SD, *  Permissible Limits of SD, *  Permissible Limits of SO, *  Permissible Limits of NO, *  Permissible Lim	No. of Week	No. of Week	No. of Week	No. of Week	No. of Week  - 1 2 3  Date & Time Starting of Monitoring - 01:07/2024 11:30 22:07/2024 12:30 15:07/2024 12:45  Date & Time Starting of Monitoring - 02:07/2024 11:30 12:15 12:00 12:15 12:00 12:45  Date & Time Starting of Monitoring - 02:07/2024 11:30 03:07/2024 12:00 12:15 12:00 12:45  Date & Time Starting of Monitoring - 02:07/2024 11:30 03:07/2024 12:00 12:15 12:15 12:30 12:45  Date & Time - Ending of Monitoring - 02:07/2024 11:45 12:00 12:15 12:15 12:15 12:00 12:45  Duration of Sampling Min. 1440 1440 1440 1440 1440 1440 1440 144	No. of Week     1   2   3   3	No. of Week	No. of Week

Instrument Used Ecotech make (1) RDS, APM - 217BL, (2) Gasoous Politialants Sampler- AAS-109, (3)Ecotech PM2.5 Sampler AAS-179

Calibration Done on 13/01/2024

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Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Date: 05/09/2024

#### REAS/ACIL/2024-25/08-01

To:

M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Kind attn.: Mr. Kalubhai Goyani

Sub.: Report of Stack Emission Analysis, Waste water analysis.

Ref.: Our visit at AWL Plant is on August 2024.

Dear Sir,

Please find enclosed following analysis report in one copy:

1.	Report of Waste Water Analysis	:	01 Samples
2.	Report of Stack Emission Monitoring	7	10 Locations
3.	Report of National Ambient Air Quality Monitoring	(2)	32 Locations
4.	Report of Drinking Water Analysis	XI.	01 Samples
<b>5</b> .	Report of Ambient Noise Level Monitoring	8	04 Samples
6.	Report of Work Place Noise Level Monitoring	(0	03 Samples
7.	Report of Fugitive Emission	9	05 Samples

Thanking you,

Yours faithfully,

Royal Environment Auditing & Consultancy Service,

A.

Encl: As above.





Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 302/08/2024-25

Date: 05/09/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.,: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 1
01	Date of Sampling		31/08/2024
02	Time of sampling	Hr.	12:15
03	Stack Attached to	444	Cement Mill
04	Air Pollution Control Measures	100	Bag Filter
05	Stack Height	Meter	70
06	Stack Diameter	Meter	***
07	Stack Temperature	°C	69
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.6
10	Isokinetic flow rate for P.M. Sampling	LPM	21
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	22
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

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Ref. No.: 303/08/2024-25

Date: 05/09/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack- 2
01	Date of Sampling		13-08-2024
02	Time of sampling	Hr.	12:00
03	Stack Attached to	***	Packing Plant (1 No.)
04	Air Pollution Control Measures	203	Bag Filter
05	Stack Height	Meter	50
06	Stack Diameter	Meter	-
07	Stack Temperature	°C	52
80	Ambient Temperature	°C	29
09	Average Velocity of Flue Gases	m/Sec.	6.9
10	Isokinetic flow rate for P.M. Sampling	LPM	17
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	23
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0,0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 304/08/2024-25

Date: 05/09/2024

#### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal:: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 3
01	Date of Sampling		31/08/2024
02	Time of sampling	Hr.	13:20
03	Stack/vent Attached to	12.00	Conveyor belt L11BC1 Vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	50
08	Ambient Temperature	°C	29
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	18
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	21
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

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Ref. No : 305/08/2024-25

Date: 05/09/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 4
01	Date of Sampling		31/08/2024
02	Time of sampling	Hr.	14:45
03	Stack/Vent Attached to		Conveyor belt 531BC1 tranfer point Vent
04	Air Pollution Control Measures	<del>- Lee</del>	Bag Filter
05	Stack/ vent Height	Meter	30
06	Stack/Vent Diameter	Meter	NAL
07	Stack/Vent Temperature	°C	56
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	19
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	20
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 306/08/2024-25

Date: 05/09/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 5
01	Date of Sampling	<b></b>	31'/08/2024
02	Time of sampling	Hr.	15:20
03	Stack/vent Attached to	(****)	Conveyor belt K11BC1 tranfer point vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	***
07	Stack/Vent Temperature	°C	58
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.8
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	19
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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E-mail: royalenvironment@live.com admin@royalconsultancy.com

Ref. No.: 307/08/2024-25

Date: 05/09/2024

#### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack- 6
01	Date of Sampling		31/08/2024
02	Time of sampling	Hr.	15:50
03	Stack/vent Attached to		Conveyor belt 491BC1 tranfer point
04	Air Pollution Control Measures		Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	58
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	18
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	22
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 308/08/2024-25

Date: 05/09/2024

#### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack-7
01	Date of Sampling		31/08/2024
02	Time of sampling	Hr.	16:30
03	Stack/Vent Attached to	***	Conveyor belt 491BC2 tranfer point
04	Air Pollution Control Measures	PARK BE	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/vent Diameter	Meter	9 <del>444</del>
07	Stack/ Vent Temperature	°C	57
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.3
10	Isokinetic flow rate for P.M. Sampling	LPM	17
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	19
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ррт	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 309/08/2024-25

Date: 05/09/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack- 8
01	Date of Sampling		31/08/2024
02	Time of sampling	Hr	11:00
03	Stack/Vent Attached to	€ <del>SWe</del> G	Conveyor belt K11BC2
04	Air Pollution Control Measures		Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	<del></del>
07	Stack/Vent Temperature	°C	60
80	Ambient Temperature	°C	32
09	Average Velocity of Flue Gases	m/Sec.	8.2
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	23
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 310/08/2024-25

Date: 05/09/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	CS-01 Vent	CS-02 Vent
01	Date of Sampling		13/08/2024	13/08/2024
02	Time of sampling	Hr	14:00	15:00
03	Stack/Vent Attached to	200	Cement Silo -1	Cement Silo -2
04	Air Pollution Control Measures	=	Bag Filter	Bag Filter
05	Stack/Vent Height	Meter	30	30
06	Stack/Vent Diameter	Meter	and the second	110-2
07	Stack/Vent Temperature	°C	60	56
80	Ambient Temperature	°C	30	31
09	Average Velocity of Flue Gases	m/Sec.	6.9	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	18	20
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm³	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	24	21
14	Permissible limits for SO <sub>2</sub>	ppm	100	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50	50
17	Measured Concentration of NO <sub>x</sub>	mqq	0.0	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Date: 05/09/2024

Ref. No.: 311/08/2024-25

# WORK ZONE NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 31/08/2024

		Results in dB(A)		
Sr. No.	Location of Sampling	Day Time 06:30am to 10:30pm	Night Time 10:30pm to 06:30am	
Permissi	ble Limits for 08:00 Hrs.	90.0	dB(A)	
01.	Main Compressor Room	84.2	78.1	
02.	Cement Mill	81.1	70.2	
03	Fly Ash Compressor Room	80.2	72.2	

Instruments used: Sound level meter, Model: VSLM-932 (Vaibhav)

Range: A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Calibration is done on: 17/05/2024

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Ref. No.: 312/08/2024-25

Date: 05/09/2024

# AMBIENT NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 31/08/2024

Sr. No.	Location of Sampling	Results in dB(A) (Day Time) 6:30am to 10:30pm	Results in dB(A) (Night Time) 10:30pm to 6:30am
Permiss	sible Limits	75.0	70.0
01.	Security Main gate (East)	65.1	58.1
02.	Packing plant (South)	67.2	61.1
03.	Cement mill (North)	69,2	63.2
04.	Clinker Silo (West)	71.1	62.2

#### **CPCB Standards**

Area Code	Category of Area / Zone	Limit in dB	Limit in dB(A) Leq.		
	outegory of Alea / Lolle	Day Time	Night Time		
Α	Industrial Area	75.0	70.0		
В	Commercial Area	65 0	55.0		
С	Residential Area	55.0	45.0		
D	Silence Zone	50.0	40.0		

Instruments used : Sound level meter, Model : VSLM-932 (Vaibhav)

Range: A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Calibration is done on: 17/05/2024

Analyst

Royal Environment Auditing & Consultancy Service



Plot No. 19 & 20, B/s. The North Star Nest School, Mascorn School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 313/08/2024-25

Date: 05/09/2024

#### REPORT OF FUGITIVE EMISSION ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No. 136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tall: Vagra, Dist: : Bharuch.

Test Method

: As per IS Standards - 5182 23/4/6

_							
Sr. No.	Particulars	Unit	Location No. 1	Location No. 2	Location No. 3	Location No. 4	Location No. 5
01.	Location of Sampling	<del>-14</del> )	Clinker shed	Gypsum shed	Packing plant	Truck loading/ Parking area	Cement mill
02	Date of sampling	435	13/08/2024	13/08/2024	13/08/2024	13/08/2024	13/08/2024
03	Time of sampling	Hr	09.00	10:45	11:00	12:00	10:00
04	Duration of Sampling	Min	480	480	480	480	480
05	Dominant Wind Direction (From)	)	sw	SW	SW	sw	SW
06	Average Wind Speed	Km/Hr	1 to 16	3 to 20	2 to 11	2 to 15	2 to 21
07	Flow rate during sampling	m3/Hr	1.0	1.0	1.0	1.0	1.0
08	Average flow rate for Gas sampling	LPM	0.2	0.2	02	0.2	0.2
09.	Permissible Limits of SPM *	μg/m³	5000	5000	5000	5000	5000
10.	Measured Concentration of SPM	µg/m³	2145	2658	2945	2875	3145

Instrument used: Envirolech make (HVS), Model No. APM-430BL, Gaseous Sampling Kit,

Calibration done on 01/01/2024

\* Permissible limits of fugitive emission based on CPCB Guidelines

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Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.

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Ref. No.: 314/08/2024-25

Date: 05/09/2024

# REPORT OF EFFLUENT ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample Collection : Sewage Treatment Plant

Date of Sampling: 31/08/2024

Sr. No.	Parameters	Unit	Permissible Limit*	STP O/L
01.	pН	mg/l	6.5-9	7.1
01.	Total Suspended Solids	mg/l	<100	42
02.	B.O.D. (3 day's at 27 °C)	mg/l	<30	22.2
03.	Fecal Coliform	MPN	<1000MPN/100ml	0.7

<sup>\*</sup> Permissible limit is only applicable to STP O/L (Treated Water)

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Ref. No :205/08/2024-25

Date:05/09/2024

#### **ANALYSIS REPORT OF WATER**

Name of company: M/s. Adani Cement Industries Limited,

Plot No. 136/P to 141/P, 144/P,145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P,179/P,187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Description: GIDC Water Date of Sampling: 31/08/2024

Sr. No.	Parameters	Unit	Acceptable Limit	Permissible Limit*	Result
01.	pH Value	pH Units	6.5 to 8.5	No Relaxation	7.45
02.	Color	Hazan	5	15	<5.0 (Colorless)
03.	Odour	3354	Agreeable	Agreeable	Agreeable
04.	Taste	<del>552</del> 9	Agreeable	Agreeable	Agreeable
05.	Turbidity	NTU	1	5	1:0
06	Total Hardness (as CaCO <sub>5</sub> )	mg/l	200	600	140.0
07	Iron (as Fe)	mg/l	0.3	No Relaxation	0.250
08	Chlorides (as CI-)	mg/l	250	1000	21.50
09	Free Residual Chlorine	mg/l	0.2	1 3	NIL
10	Total Dissolved Solids	mg/i	500	2000	160 40
11_	Calcium (as Ca)	mg/l	75	200	17.500
12.	Magnesium (as Mg)	mg/l	30	100	20 60
13.	Copper (as Cu)	mg/l	0.05	1.5	0.700
14.	Manganese (as Mn)	mg/l	0.1	0.3	0.011
15.	Sulphates (as SO <sub>4</sub> )	mg/l	200	400	21.500
16	Nitrates (as NO <sub>3</sub> )	mg/l	45	No Relaxation	1.800
17_	Fluoride (As F)	mg/l	1.0	1.5	0.500
18	Phenolic Compounds(as C <sub>6</sub> H <sub>5</sub> OH)	mg/l	0.001	0.002	< 0.001
19	Mercury (as Hg)	mg/l	0.001	No Relaxation	< 0.001
20	Cadmium (as Cd)	mg/l	0.003	No Relaxation	0.090

(\*)Permissible Limit in the Absense of Alternate Source as per IS 10500 2012 Drinking Nater Specification

Cont Page 1 of 2



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.:205/08/2024-25

Sample Description: GIDC Water

Sr. No.	Parameters	Unit	Acceptable Limit (*)	Permissible Limit*	Result
21	Selenium (Se)	mg/l	0.01	No Relaxation	< 0.010
22.	Arsenic (as As)	mg/l	0.05	No Relaxation	< 0.010
23	Lead (as Pb)	mg/l	0.01	No Relaxation	0.004
24	Zinc(aş Zn)	mg/l	5	15	0.034
25	Chromium (Cr+6)	mg/l	0.05	No Relaxation	0.011
26	Anionic Detergents (as MBAS)	mg/l	02	1	< 0.010
27	Mineral Oil	mg/l	0.5	No Relaxation	< 0.010
28	Sodium (as Na)	mg/l	100	Absent	7.450
29.	Potassium (as K)	mg/l	100	600	0.100
30	Aluminum (as Al)	mg/l	0-03	0.2	0 020
31_	Barium(as B)	mg/l	0.7	No Relaxation	< 0.010
32	Molybdenum	mg/l	0.07	No Relaxation	< 0.010
33,	Boron (as B)	mg/l	0.5	2.4	< 0 005
34	Nickel (as Ni)	mg/l	0.02	No Relaxation	< 0.010
iologica	I Characteristics:				
35	E-Coli	Counts/100 ml	Absent	No Relaxation	Absent
36	Coliform	Counts/100 ml	Absent	No Relaxation	Absent

(\*) Acceptable Limit as per IS 10500 2012. Drinking Water Specification

Page 2 of 2

Royal Environment Auditing & Consultancy Service





Plot No. 19 & 20, B/s. The North Star Nest School, Mascorn School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 316/08/2024-25

Date: 05/09/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: AUGUST 2024

Name of company: M/s. Adami Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch,

S. No.	Particulars	Unit			Nr. M	lain Security	Main gate (	East)		
01	No. of Week	***	1 2			3		4		
02	Date & Time Starting of Monitoring	45	05/08/2024 08:30	06/08/2024 08:45	12/08/2024 08:45	13/08/2024 09:00	20/08/2024 09:15	21/08/2024 09:30	26/08/2024 09:45	27/08/2024 10:00
03	Date & Time - Ending of Monitoring	2	06/08/2024 08:30	07/08/2024 08:45	13/08/2024 08:45	14/08/2024 09:00	21/08/2024 09:15	22/08/2024 09:30	27/08/2024 09:45	28/08/2024 10:00
04	Duration of Sampling	Min_	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	-	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15	2 to 16
07.	Average Flow Rate For PM2.5	m3/Hr	10	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10,	Permissible Limits of PM2.5 *	µg/m³	60	60	60	60	60	60	60	60
11	Measured Concentration of PM2.5	µg/m³	33.2	31.1	30.2	39.2	40.1	42.2	37.1	46.2
12.	Permissible Limits of PM10 *	pg/m²	100	100	100	100	100	100	100	100
13.	Measured Concentration of PM10	hð\w <sub>a</sub>	62.2	60.1	58.2	64.2	63.2	57.1	52.2	62.2
14.	Permissible Limits of SO <sub>2</sub> *	hā/w,	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	12.2	15.2	17.1	13.2	11.1	14.2	16.2	15.1
16.	Permissible Limits of NO <sub>2</sub> *	hō/m <sub>2</sub>	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	24.2	19.2	23.2	25.2	Rafkbt	23.2	26.1	20.2

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polllulants Sampler- AAS-109, (3)Ecolech PMZ 5 Sampler- AAS 127

Calibration Done on : 13/01/7

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Royal Environment Auditing & Consultancy Service, Rajkot



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail: royalenvironment@tive.com ■ admin@royalconsultancy.com

Ref. No.: 317/08/2024-25

Date: 05/09/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: AUGUST 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit				Packing :	Plant (South	)		
01.	No. of Week	, 44		1		2		3		4
02	Date & Time Starting of Monitoring	VZ.	05/08/2024 08:45	06/08/2024 08:55	12/08/2024 09:00	13/08/2024 09:10	20/08/2024 09:30	21/08/2024 09:40	26/08/2024 10:00	27/08/2024 10:10
03	Dete & Time - Ending of Monitoring	182	06/08/2024 08:45	07/08/2024 08:55	13/08/2024 09:00	14/08/2024 09:10	21/08/2024 09:30	22/08/2024 09:40	27/08/2024 10:00	28/08/2024 10:10
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	(es	NE	NE	SE	SE	NE	SE	\$E	SE
06	Wind Speed Velocity	Km/Hr	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15	2 to 16
07.	Average Flow Rate For PM2 5	т3Анг	1.0	1.0	1.0	1.0	1,0	1_0	1.0	1.0
08	Average Flow Rate For PM10	m3/Min.	1.13	1.12	1,18	1.14	1,12	1.11	1.12	1.21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	µg/m³	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2 5	<b>р</b> д/т <sup>3</sup>	32.2	46.2	41.1	52.2	38.2	47.1	42.2	53.2
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	62,1	57.1	53.2	63.2	68.1	70.1	52.2	59.2
14	Permissible Limits of SO <sub>2</sub> *	hā/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	13.1	15.1	17.1	12.2	14.2	11.2	16.1	14.2
16.	Permissible Limits of NO <sub>2</sub> *	hã/w <sub>3</sub>	80	B0	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	hā/m³	24.2	26_1	20,2	dil 23.2 °	22,1	19.2	24.1	19.1

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Pollutants Sampler- AAS-109, (3) Footech PMZ 5 Sampler- AAS-127

Calibration Done on 13/01/2024

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Ref. No.: 318/08/2024-25

Date: 05/09/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH : AUGUST 2024

Name of company: M/s. Adami Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit				Cement n	nill (North)			
Đ1.	No. of Week	: <del>***</del> :		1		2		3		4
02	Date & Time Starting of Monitoring		05/08/2024 09:00	06/08/2024 09:10	12/08/2024 09:15	13/08/2024 09:25	20/08/2024 09:45	21/08/2024 09:55	26/0 <b>8/2024</b> 10:15	27/08/2024 10:25
03	Date & Time - Ending of Monitoring	Ē	06/08/2024 09:00	07/08/2024 09:10	13/08/2024 09:15	14/08/2024 09:25	21/08/2024 09:45	22/08/2024 09:55	27/0 <b>8/2024</b> 10:15	28/08/2024 10:25
Đ4	Duration of Sampling	Min.	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant-Wind-Direction (From)	-	NE	NE	SE	SE	NE	SE	SE	SE
06	White Speed Velocity	Km/Hr	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15	2 to 16
07	Average Flow Rate For PM2.5	m3/Hr	1.0	1,0	1_0	1.0	1.0	1,0	1.0	1.0
08	Average Flow Rate For PM10	т3Мп	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	hā <sub>l</sub> m <sub>3</sub>	60	60	60	60	60	60	60	60
11	Measured Concentration of PM2.5	µ <b>g/m³</b>	39.1	42.2	45,2	30.2	28.1	32,1	34.1	43.2
12.	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	hā/w <sub>3</sub>	60.1	63.1	59.2	56.2	56.1	63.2	64.1	59.1
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	hã;w <sub>g</sub>	12.2	15.1	11.2	13.1	14.2	16.1	12.2	17.2
16.	Permissible Limits of NO <sub>2</sub> *	hā <sub>lm</sub> ,	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	20.2	26.1	23.2	19.2	21.2	24.2	22.1	20.2

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polliutants Sampler-AAS-109, (3)Ecotech FM2.5 Sampler-AAS 127

Calibration Done on 1201/2024

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Ref. No.: 319/08/2024-25

Date: 05/09/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: AUGUST 2024

Name of company: M/s. Adam Cement Industries Limited.

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit				Clinker S	ilo (West)			
01.	No. of Week	( <del>+</del>		1	:	2	;	3		4
02	Date & Time Starting of Monitoring	==	05/08/2024 09:30	06/08/2024 09:45	12/08/2024 09:45	13/08/2024 10:00	20/08/2024 10:15	21/08/2024 10:30	26/0 <b>8/2</b> 024 10:45	27/08/2024 11:00
03	Date & Time - Ending of Monitoring	725	06/08/2024 09:30	07/08/2024 09:45	13/08/2024 09:45	14/08/2024 10:00	21/08/2024 10:15	22/08/2024 10:30	27/0 <b>6/2</b> 024 10:45	28/08/2024 11:00
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	==	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr	2 to 13	3 to 17	4 to 18	2 to 13	2 to 14	2 to 14	4 to 18	3 to 15
D7	Average Flow Rate For PM2 5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08	Average Flow Rate For PM10	m3/Min	1,13	1.12	1.18	1.14	1.12	1.11	1.12	1.21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5*	µg/m³	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2 5	þg/m³	38 2	32.2	40.2	39.2	32.2	35.1	41.2	32 2
12.	Permissible Limits of PM10 *	µg/m²	100	100	100	100	100	100	100	100
13_	Measured Concentration of PM10	µg/m³	58 1	52.2	62.1	54.1	60.2	63.2	67.1	59.1
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	µg/m³	12.2	15.2	17.1	13.2	16.2	11.2	14.2	13.1
16.	Permissible Limits of NO <sub>2</sub> *	hBjw <sub>3</sub>	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	μg/m³	26.1	22.1	23.2	24.2	25.1	19.1	21.2	23,3

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polllutants Sampler-AAS-109, (3)Ecotech PM2 5 Sampler-AAS 127

Calibration Done on: 13/01/2024

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Royal Environment Audiling & Consultancy Service, Rajkot

Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

REAS/ACIL/2024-25/09-01

Date: 04/10/2024

To:

**M/s. Adani Cement Industries Limited,** Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Kind attn.: Mr. Kalubhai Goyani

Sub.: Report of Stack Emission Analysis, Waste water analysis.

Ref.: Our visit at AWL Plant is on September 2024.

Dear Sir,

Please find enclosed following analysis report in one copy:

1.	Report of Waste Water Analysis	3	01 Samples
2.	Report of Stack Emission Monitoring		10 Locations
3.	Report of National Ambient Air Quality Monitoring	8	32 Locations
4.	Report of <b>Drinking Water</b> Analysis	*	01 Samples
5.	Report of Ambient Noise Level Monitoring	8	04 Samples
6.	Report of Work Place Noise Level Monitoring	10	03 Samples
7.	Report of Fugitive Emission	8	05 Samples
8.	Report of Workplace Monitoring (F.No.37)	8	05 Samples

Thanking you,

Yours faithfully,

Royal Environment Auditing & Consultancy Service,

Digvijay Jadeja

Encl: As above.



Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 402/09/2024-25 Date: 04/10/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 1
01	Date of Sampling		28/09/2024
02	Time of sampling	Hr.	14:15
03	Stack Attached to	1775	Cement Mill
04	Air Pollution Control Measures		Bag Filter
05	Stack Height	Meter	70
06	Stack Diameter	Meter	
07	Stack Temperature	°C	67
80	Ambient Temperature	°C	29
09	Average Velocity of Flue Gases	m/Sec.	76.0
10	Isokinetic flow rate for P.M. Sampling	LPM	22
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	24
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No ESS - 100

Calibration done on: 14/01/2024

Royal Environment Auditing & Consultancy Service

Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 403/09/2024-25

Date: 04/10/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 2
01	Date of Sampling	4555	13/09/2024
02	Time of sampling	Hr.	12:10
03	Stack Attached to	722	Packing Plant (1 No.)
04	Air Pollution Control Measures	18 M M	Bag Filter
05	Stack Height	Meter	50
06	Stack Diameter	Meter	***
07	Stack Temperature	°C	52
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.2
10	Isokinetic flow rate for P.M. Sampling	LPM	18
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	21
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 404/09/2024-25

Date: 04/10/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 3
01	Date of Sampling	377	28/09/2024
02	Time of sampling	Hr.	14:50
03	Stack/vent Attached to		Conveyor belt L11BC1 Vent
04	Air Pollution Control Measures	500	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	52
80	Ambient Temperature	°C	29
09	Average Velocity of Flue Gases	m/Sec.	6.9
10	Isokinetic flow rate for P.M. Sampling	LPM	17
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	19
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

Royal Environment Auditing & Consultancy Service



Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail: royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 405/09/2024-25

Date: 04/10/2024

#### STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 4
01	Date of Sampling		28/09/2024
02	Time of sampling	Hr	15:30
03	Stack/Vent Attached to	94	Conveyor belt 531BC1 tranfer point Vent
04	Air Pollution Control Measures	1970	Bag Filter
05	Stack/ vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	58
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.4
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	22
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on 14/01/2024

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Royal Environment Auditing & Consultancy Service

Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No.: 406/09/2024-25 Date: 04/10/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 5
01	Date of Sampling		28'/09/2024
02	Time of sampling	Hr.	16:15
03	Stack/vent Attached to	(A ANN)	Conveyor belt K11BC1 tranfer point vent
04	Air Pollution Control Measures		Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	59
80	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.9
10	Isokinetic flow rate for P.M. Sampling	LPM	23
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	17
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

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Ref. No.: 407/09/2024-25

Date: 04/10/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 6
01	Date of Sampling		28//09/2024
02	Time of sampling	Hr.	16:55
03	Stack/vent Attached to	2220	Conveyor belt 491BC1 tranfer point
04	Air Pollution Control Measures		Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	
07	Stack/Vent Temperature	°C	56
80	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	16
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	20
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 408/09/2024-25

Date: 04/10/2024

# STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	Stack- 7
01	Date of Sampling	<del>Tape</del>	13/09/2024
02	Time of sampling	Hr.	14:00
03	Stack/Vent Attached to	<b>SEC</b>	Conveyor belt 491BC2 tranfer point
04	Air Pollution Control Measures	***	Bag Filter
05	Stack/vent Height	Meter	30
06	Stack/vent Diameter	Meter	***
07	Stack/ Vent Temperature	°C	55
08	Ambient Temperature	°C	30
09	Average Velocity of Flue Gases	m/Sec.	7.8
10	Isokinetic flow rate for P.M. Sampling	LPM	19
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	23
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used : Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 409/09/2024-25

Date: 04/10/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

**Test Method** 

: As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	Stack- 8
01	Date of Sampling		13/09/2024
02	Time of sampling	Hr.	14:50
03	Stack/Vent Attached to		Conveyor belt K11BC2
04	Air Pollution Control Measures	85F	Bag Filter
05	Stack/Vent Height	Meter	30
06	Stack/Vent Diameter	Meter	( <del>-44</del> )
07	Stack/Vent Temperature	°C	58
08	Ambient Temperature	°C	31
09	Average Velocity of Flue Gases	m/Sec.	7.1
10	Isokinetic flow rate for P.M. Sampling	LPM	20
11	Gaseous Sampling Flow Rate	LPM	2.0
12	Permissible limits for PM	mg/Nm³	150
13	Measured Concentration of PM.	mg/Nm³	21
14	Permissible limits for SO <sub>2</sub>	ppm	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on : 14/01/2024

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Ref. No.: 410/09/2024-25 Date: 04/10/2024

## STACK EMISSION MONITORING ANALYSIS

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method : As per IS Standards - 11255\_1/2/3/7

Sr. No.	Particulars	Unit	CS-01 Vent	CS-02 Vent
01	Date of Sampling		13/09/2024	13/09/2024
02	Time of sampling	$Hr_{\oplus}$	15:00	15:45
03	Stack/Vent Attached to	-	Cement Silo -1	Cement Silo -2
04	Air Pollution Control Measures	E 22	Bag Filter	Bag Filter
05	Stack/Vent Height	Meter	30	30
06	Stack/Vent Diameter	Meter	1999	
07	Stack/Vent Temperature	°C	60	62
80	Ambient Temperature	°C	31	31
09	Average Velocity of Flue Gases	m/Sec.	7.2	7.4
10	Isokinetic flow rate for P.M. Sampling	LPM	17	19
11	Gaseous Sampling Flow Rate	LPM	2.0	2.0
12	Permissible limits for PM	mg/Nm³	150	150
13	Measured Concentration of PM.	mg/Nm <sup>3</sup>	26	23
14	Permissible limits for SO <sub>2</sub>	ppm	100	100
15	Measured Concentration of SO <sub>2</sub>	ppm	0.0	0.0
16	Permissible limits for NO <sub>x</sub>	ppm	50	50
17	Measured Concentration of NO <sub>x</sub>	ppm	0.0	0.0

Instruments Used: Ecotech Stack Kit model No. ESS - 100

Calibration done on: 14/01/2024

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Ref. No.: 411/09/2024-25

Date: 04/10/2024

# WORK ZONE NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 28/09/2024

	or. No. Location of Sampling  ermissible Limits for 08:00 Hrs.  O1. Main Compressor Room  O2. Cement Mill	Results in dB(A)					
Sr. No.		Day Time 06:30am to 10:30pm	Night Time 10:30pm to 06:30am				
Permissi	ble Limits for 08:00 Hrs.	90.0	dB(A)				
01.	Main Compressor Room	83.1	79.2				
02	Cement Mill	80.1	75.1				
03.	Fly Ash Compressor Room	82.2	73.2				

Instruments used: Sound level meter, Model: VSLM-932 (Vaibhav)

Range: A - 30 to 80 dB, B-50 to 100 dB, C-80 to 130 dB.

Calibration is done on: 17/05/2024

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Ref. No.: 412/09/2024-25

Date: 04/10/2024

## AMBIENT NOISE LEVEL MEASUREMENT

Name of Company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Sample Collection Date: 28/09/2024

Sr. No.	Location of Sampling	Results in dB(A) (Day Time) 6:30am to 10:30pm	Results in dB(A) (Night Time) 10:30pm to 6:30am
Permiss	ble Limits	75.0	70.0
01.	Security Main gate (East)	68.1	56.1
02	Packing plant (South)	66.2	62.2
03.	Cement mill (North)	70.1	64.1
04.	Clinker Silo (West)	69.1	63.2

#### **CPCB Standards**

Area	Category of Area / Zone	Limit in dB(A) Leq.				
Code	Oategory of Alea / Zone	Day Time	Night Time			
Α	Industrial Area	75.0	70-0			
В	Commercial Area	65.0	55.0			
С	Residential Area	55 0	45.0			
D	Silence Zone	50.0	40.0			

Instruments used: Sound level meter, Model: VSLM-932 (Vaibhav)

Range: A - 30 to 80 dB, B-50 to 100 dB,C-80 to 130 dB.

Calibration is done on : 17/05/2024

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Ref. No : 413/09/2024-25 Date: 04/10/2024

#### REPORT OF FUGITIVE EMISSION ANALYSIS

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Test Method

: As per IS Standards - 5182 23/4/6

Sr. No.	Particulars	Unit	Location No. 1	Location No. 2	Location No. 3	Location No. 4	Location No. 5
01.	Location of Sampling	000	Clinker shed	Gypsum shed	Packing plant	Truck loading/ Parking area	Cernent mill
02.	Date of sampling	1200	13/09/2024	13/09/2024	13/09/2024	13/09/2024	28/09/2024
03.	Time of sampling	Hr	09:30	09:45	10:00	10:15	10:00
04	Duration of Sampling	Min	480	480	480	480	480
05	Dominant Wind Direction (From)	1777	sw	sw	sw	sw	sw
06	Average Wind Speed	Km/Hr	1 to 14	3 to 18	2 to 11	2 to 15	4 to 21
07.	Flow rate during sampling	m3/Hr	1.0	1.0	10	1.0	1.0
08	Average flow rate for Gas sampling	LPM	0.2	0.2	0.2	0.2	0.2
09.	Permissible Limits of SPM *	μg/m³	5000	5000	5000	5000	5000
10	Measured Concentration of SPM	µg/m³	2451	2314	3145	2456	<b>4</b> 152

Instrument used Envirotech make (HVS), Model No APM-430BL, Gaseous Sampling Kit, Calibration done on 01/01/2024

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<sup>\*</sup> Permissible limits of fugitive emission based on CPCB Guidelines

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Ref. No.: 514/09/2024-25

Date: 04/10/2024

# REPORT OF EFFLUENT ANALYSIS

Name of company: M/s. Adani Cement Industries Limited.

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P,

162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample Collection: Sewage Treatment Plant

Date of Sampling :13/09/2024

Sr. No.	Parameters	Unit	Permissible Limit*	STP O/L
<b>0</b> 1.	рН	mg/l	6.5-9	7.3
01.	Total Suspended Solids	mg/l	<100	45
02.	B.O.D. (3 day's at 27 °C)	mg/l	<30	20.2
03.	Fecal Coliform	MPN	<1000MPN/100ml	120

<sup>\*</sup> Permissible limit is only applicable to STP O/L (Treated Water)

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Ref. No: 415/09/2024-25

Date: 04/10/2024

#### REPORT OF DRINKING WATER SAMPLES

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P. 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

Source of Sample: Drinking Water (Admin Office)

Date of Sampling:13/09/2024

Sr. No.	Parameters	Unit	Acceptable Limits(*)	Results
01.	рН	pH Units	6,5 to 8.5	7.15
02	Colour	Hazen	5	Colourless
03.	Turbidity	NTU	1	< 1.0
04.	Total Dissolved Solids	mg/l	500	115
05.	Total Suspended Solids	mg/l		23
06.	Total Solids	mg/l		120
07.	Chlorides	mg/l	250	61
08.	Sulphates	mg/l	200	14.1
09.	Total Hardness (As CaCO <sub>3</sub> )	mg/l	200	62.1
10.	Calcium (as Ca)	mg/i	75	25.1
11.	Magnesium (as Mg)	mg/l	30	6.1
12.	Total Alkalinity	mg/l	200	28
13.	Nitrates	mg/l	<b>4</b> 5	3.5
14::	Flouride	mg/l	1.0	0.03
15.	E-Coli	MPN/100ml	Absent	Absent

(\*) Acceptable Limit as per IS 10500 : 2012, Drinking Water Specification

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Ref. No. : 416/09/2024-25

RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: SEPTEMBER 2024

Date: 04/10/2024

Name of company: Ms. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit			Nr. M	lain Security	/ Main gate (	East)		
01.	No. of Week	1,755		1	:	2		3		4
02	Date & Time Starting of Monitoring	=	02/09/2024 09:45	03/09/2024 10:00	09/09/2024 09:00	10/09/2024 09:15	16/09/2024 09:30	17/09/2024 09:45	23/09/2024 10:15	24/09/2024 10:30
03	Date & Time - Ending of Monitoring		03/09/2024 09:45	04/09/2024 10:00	10/09/2024 09:00	11/09/2024 09:15	17/09/2024 09:30	18/09/2024 09:45	24/09/2024 10:15	25/09/2024 10:30
04.	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	-	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Клі⁄Нг	2 to 16	3 to 18	4 to 15	3 to 17	2 to 18	4 to 18	5 to 15	5 to 18
07	Average Flow Rate For PM2.5	m3/Hr	1.0	1,0	1.0	1.0	1.0	1.0	1.0	1,0
08	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21
09	Average Flow Rate for Gasious	LPM	0 2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10436	Permissible Limits of PM2.5 *	μg/m³	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2.5	hâ/m <sub>3</sub>	36.2	34.1	29.1	28.2	31.1	40.2	36,1	42.1
12.	Permissible Limits of PM10 *	hājw	100	100	100	100	100	100	100	100
13.	Measured Concentration of PM10	hā\w <sub>3</sub>	60.1	53.2	59.1	65.2	68.1	62.2	60.1	59.2
14.	Permissible Limits of SO₂ *	hð\w <sub>3</sub>	80	80	80	80	80	80	80	80
15 I	Measured Concentration of SO <sub>2</sub>	μg/m³	13.1	14.2	16.1	11.2	15.1	12.2	17 2	15.2
16.	Permissible Limits of NO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	20.2	26.1	24.2	23.1	21.1	19.1	20.2	22.1

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Poliflutants Sampler- AAS-109, (3) Ecotech PM2 5 Sampler- AAS 127

Calibration Done on: 13/01/2024

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Ref. No.: 417/09/2024-25

Date: 04/10/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: SEPTEMBER 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit	Packing Plant (South)							
<b>Q1.</b>	No. of Week			1		2		3		4
02	Date & Time Starting of Monitoring	=	02/09/2024 10:00	03/09/2024 10:15	09/09/2024 09:15	10/09/2024 09:30	16/09/2024 09:45	17/09/2024 10:00	23/09/2024 10:30	24/09/2024 10:45
03.	Date & Time - Ending of Monitoring	<u> </u>	03/09/2024 10:00	04/09/2024 10:15	10/09/2024 09:15	11/09/2024 09:30	17/09/2024 09:45	18/09/2024 10:00	24/09/2024 10:30	25/09/2024 10:45
04.	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	155	NE	NE	SE	SE	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr_	2 to 16	3 to 18	4 to 15	3 to 17	2 to 18	4 to 18	5 to 15	5 to 18
07	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1,0	1.0	1.0
08	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21
09.	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5*	µg/m³	60	60	60	60	60	60	60	60
11.	Measured Concentration of PM2.5	µg/m³	30.1	42.2	50_1	41.1	49.2	53.1	54.2	58 2
12.	Permissible Limits of PM10 *	hã/w <sub>a</sub>	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	hð/w <sub>3</sub>	63_1	64.2	58.1	69.1	64.1	71,2	59.2	63.1
14.	Permissible Limits of SO <sub>2</sub> *	hā/m <sub>3</sub>	80	80	80	80	80	80	80	80
15 I	Measured Concentration of SO <sub>2</sub>	hā/w <sub>3</sub>	16.2	17.2	15.1	14.1	12,2	15_1	11.3	17.1
16 I	Permissible Limits of NO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	20.2	18.2	23.2	26.1	21.2	22.2	19.1	24.1

Instrument Used: Ecotech make (1) RDS. APM - 217BL, (2) Gaseous Politutants Sampler- AAS-109, (3) Ecotech PM2 5 Sampler- AAS 127

Calibration Done on 13/01/2024

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Ref. No : 418/09/2024-25

Date: 04/10/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: SEPTMBER 2024

Name of company: M/s. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch.

S. No.	Particulars	Unit	Cement mil! (North)							
01.	No. of Week	10		1	2		3		4	
02	Date & Time Starting of Monitoring	=	02/09/2024 10:15	03/09/2024 10:30	09/09/2024 09:30	10/09/2024 09:45	16/09/2024 10:00	17/09/2024 10:15	23/09/2024 10:45	24/09/2024 11:00
03	Date & Tirne - Ending of Monitoring	:=	03/09/2024 10:15	04/09/2024 10:30	10/09/2024 09:30	11/09/2024 09:45	17/09/2024 10:00	18/09/2024 10:15	24/09/2024 10:45	25/09/2024 11:00
04	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	199	NE	NE	SE	SĒ	NE	SE	SE	SE
06	Wind Speed Velocity	Km/Hr	2 to 16	3 to 18	4 to 15	3 to 17	2 to 18	4 to 18	5 to 15	5 to 18
07.	Average Flow Rate For PM2.5	m3/Hr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
08	Average Flow Rate For PM10	m3/Min	1,13	1.12	1.18	1.14	1.12	1.11	1.12	1,21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10	Permissible Limits of PM2.5 *	ha/w <sub>a</sub>	60	60	60	60	60	60	60	60
11	Measured Concentration of PM2.5	µg/m³	40.2	43.1	49.1	52.1	36.2	39.1	42.2	41.1
12.	Permissible Limits of PM10 *	h8/w <sub>a</sub>	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	68.2	72.2	71.1	75.2	62.2	68.2	72.2	69.1
14.	Permissible Limits of SO <sub>2</sub> ?	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	hã (m <sub>3</sub>	11.2	13.2	14.1	15.2	16.2	17.1	18.2	12.2
16,	Permissible Limits of NO <sub>2</sub> *	h8 <sub>l</sub> w <sub>3</sub>	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	h <b>ā</b> lm³	19.1	22.2	25.1	26.2	20 2	23.1	21.3	24.1

Instrument Used: Ecotech make (1) RDS, APM - 217BL, (2) Gaseous Polikitants Sampler- AAS-109, (3)Ecotech PM2.5 Sampler- AAS 127

Calibration Done on 13/01/2024

94

Royal Environment Auditing & Consultancy Service, Rajkot



Plot No. 19 & 20, B/s. The North Star Nest School, Mascom School Road, Mota Mava, RAJKOT - 360 005. Ph.: +91 9099919954 = E-mail : royalenvironment@live.com = admin@royalconsultancy.com

Ref. No.: 419/09/2024-25

Date: 04/10/2024

#### RESULTS OF AMBIENT AIR QUALITY MONITORING FOR THE MONTH: SEPTMBER 2024

Name of company: Ms. Adani Cement Industries Limited,

Plot No.136/P to 141/P, 144/P, 145/P, 151/P to 155/P, 162/P, 174/P to 176/P, 178/P, 179/P, 187/P to 191/P of

Village: Dahej in Dahej Industrial Estate,

Tal.: Vagra, Dist.: Bharuch,

S. No.		Unit	Clinker Silo (West)							
<b>Q</b> 1.			1		2		3		4	
02	Date & Time Starting of Monitoring		02/09/2024 10:30	03/09/2024 10:45	09/09/2024 09:45	10/09/2024 10:00	16/09/2024 10:15	17/09/2024 10:30	23/09/2024 11:00	24/09/2024 11:15
03.	Date & Time - Ending of Monitoring	ne	03/09/2024 10:30	04/09/2024 10:45	10/09/2024 09:45	11/09/2024 10:00	17/09/2024 10:15	18/09/2024 10:30	24/09/2024 11:00	25/09/2024 11:15
04.	Duration of Sampling	Min	1440	1440	1440	1440	1440	1440	1440	1440
05	Dominant Wind Direction (From)	1=	NE	NE	ŞE	SE	NE	SE	SE	SE
06.	Wind Speed Velocity	Km/Hr	2 to 16	3 to 18	4 to 15	3 to 17	2 to 18	4 to 18	5 to 15	5 to 18
07	Average Flow Rate For PM2.5	m3#Hr	1.0	1.0	1.0	1.0	1.0	1.0	1:0	1.0
80	Average Flow Rate For PM10	m3/Min	1.13	1.12	1.18	1.14	1.12	1.11	1.12	1.21
09	Average Flow Rate for Gasious	LPM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10.	Permissible Limits of PM2.5 *	µg/m³	60	60	60	60	60	60	60	60
11	Measured Concentration of PM2,5	µg/m³	42.2	45.1	50 1	39.1	40.2	43.1	41.2	46.2
12	Permissible Limits of PM10 *	µg/m³	100	100	100	100	100	100	100	100
13	Measured Concentration of PM10	µg/m³	62.1	68.2	70.2	73.2	68.1	65.2	74.2	67.1
14.	Permissible Limits of SO <sub>2</sub> *	µg/m³	80	80	80	80	80	80	80	80
15	Measured Concentration of SO <sub>2</sub>	hā,w <sub>a</sub>	17.2	14.1	13.2	11.2	16.1	15.1	14.2	12.1
16.	Permissible Limits of NO <sub>2</sub> *	µg/m²	80	80	80	80	80	80	80	80
17	Measured Concentration of NO <sub>2</sub>	µg/m³	20.1	23.2	22,1	26.1	19.2	22,2	24.1	22.1

Instrument Used: Ecolech make (1) ROS. APM - 217BL, (2) Gaseous Polliutants Sampler- AAS-109, (3)Ecotech PM2.5 Sampler- AAS 127

Calibration Done on 13/01/2024



Royal Environment Auditing & Consultancy Service, Rajkot

# Form No. 37 (Prescribed under Rule 12-B)

Register containing particulars of monitoring of working environment required under Section 7-A (a)(e).

- 1 Name of the Department/Plant: PACKING & CEMENT MILL SECTION OF Adami Cement Industries Limited,
- 2 Raw materials, by products and finished products involved in the process. TOTAL DUST
- 3 Particulars of sampling

Date of Sampling:13th to 28th September, 2024

о <sub>л</sub>	4	з <u>2</u>	2			No.	
Nr. Hopper Building	Nr. BRU	Nr. Gypsum Yard	Nr. Cement Mill	Nr. Packer		Location Operation monitored	
		Total Dust	Identified Contaminate				
	VPDS 203	Respirable Dust	Sampling Instrument used				
1	1	1	1	1	Number of Sample	Airborne	
<b>1</b> 0	60	100	78	11 11 395 11	Range	Airborne Contamination	
4.7	4.1	3.5	4.2	3.8	Average	nation	
10 ng	10	10	10	10	Mg/m³	TWA Concentration (As given in Second Schedule)	
Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Refrance Method		
10	2	10	30	10	Number of workers exposed at the location being monitored		
Sunilkumar bhagat	Sunilkumar bhagat	Sunilkumar bhagat	Sunilkumar bhagat	Deodatt pattewale	Plant		
	8	Jan Service Control of the Control o	Signature person taking samples				
		HARSHIL PATEL		Name (in Block fetters)			

Calibration Done On.: 16/01/2024

Solve Manual Man

Royal Environment Auditing & Consultancy Service

Authorized Sign



# Safety MIS Report Adani cement industries Ltd, GU Dahej (April '2024 - September '2024)

## I. Highlight of EHS-

- 1. Non-Standard Monkey ladder removed at 511 BF5 Hopper building.
- 2. Earth pit resistance value testing done and inspection tag display.
- 3. All load center in lock and key and emergency door outside all drop has been removed.
- 4. Emergency exit display board has been connected with UPS.
- 5. Entry authorization list has been displayed on load center door.
- 6. Q2 & Q3 safety committee meeting conducted.
- 7. Full body harness inspection done.
- 8. Confined space survey done.
- 9. Lifting tool & tackles visual inspection done.
- 10. Safety awareness program held on PTW, electrical safety, material lifting etc.
- 11. Hand railing modify at the top of Fly ash silo.
- 12. Power tools being used with proper ELCB, and defective power hand tools banned to use at site, monthly check list checked and maintained the record.
- 13. Daily TBT conducted at site, on job TBT and classroom training implemented at the site.
- 14. Leading indicators being reported and corrected on site by every individual to prevent incidents.
- 15. Daily safety concerns reported online portal Gensuite and ensure all safety compliances.
- 16. Fire hydrant system installed and in working condition.
- 17. Portable fire extinguisher installed different location at site.
- 18. Gas Cylinder handling" and "Pinch Point" monthly campaign.
- 19. "SAKSHAM" 3 hours health and safety training program launched and imparted to all 256 employees.
- 20. Health check being the worker and Ambulance higher with round clock 24X7 male nurse.
- 21. Tarpaulin tying facility completed to control working at height hazards.
- 22. Two mock drills has done at the site.
- 23. Randomly carrying the alcohol testing of contract workmen



# II. OHS – Statistics (April '2024 -September '2024)

S. No.	Description / Activity	Cumulative
1.	Reportable (Fatal) Accident	0
2.	Reportable (Other than Fatal) Accident	0
3.	Non-Reportable (First Aid Cases)	0
4.	Man-Days Lost (MDL)	0
5.	Man-Hours Worked	304298
6.	Frequency Rate (FR)	0
7.	Severity Rate (SR)	0
8.	Disabling Injury Index (DII)	0
9.	Near Miss	06
10.	Dangerous Occurrence (DO)	0
11.	Fire Incident	0
12.	Fire Calls Attended (By Fire Crew)	0
13.	Mock Drill (Fire)	02
14.	No of Safety Observations Issued	645
15.	No of Safety Observations Complied	579
16.	Percentage Compliance	89.76%
17.	No. of Memos / chalan Issued	00
18.	Details of award (Reward & Recognition)	15
19.	No of Safety Training	13
20.	No. of workers Safety Induction provided	256
21.	No. of Employees Covered in safety Induction	00
22.	Safety Awareness Programs Daily TBT (No's of Workman)	2091
23.	No. of Safety Committee Meeting	02



# II. Photographs (Training / Observations / etc.)

Sr. No.	Topic	Photographs
1	Mock Drill	



2 "Gas Cylinder handling" monthly campaign



3 Safety TBT On Daily
Basis









4 "Pinch Point"

Campaign Lunch





Randomly carrying 5 the alcohol testing at main gate 6 "Permit to work" Training



# Attachment – 7

7 "Electrical Safety for Nontrade Workman" training provided

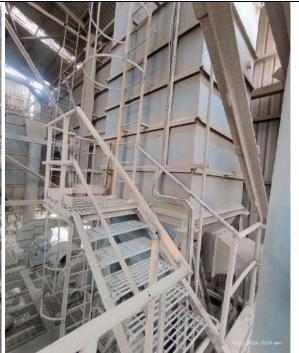




## Attachment – 7

8 Monkey ladders replace with Step ladder





9 "Safety Commitee" meeting conducted





# Attachment – 7

10 "Monthly Safety
Gate Meeting
Conducted"





Attachment - 8

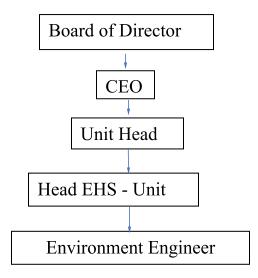


#### FORMATION OF ENVIRONMENTAL MANAGEMENT CELL (EMC)

To maintain the environmental quality within the standards, regular inspections, audits & monitoring of various environmental components is required. Adani Cement Industries Limited has established an Environmental Management Cell (EMC) for environmental monitoring and control. The EMC team is responsible for pollution monitoring aspects and implementation of control measures.

Efficient engineers with technicians have been deployed for maintenance, up keeping and monitoring the pollution control equipment, to keep them in working mode at the best of their efficiencies.

### **Structure of Environment Management Cell**



#### **Responsibilities of EMC**

The EMC functions to ensure that environmental status of the area remains within the statutory standard of MoEFCC/SEIAA and SPCB. The responsibilities of the EMC include the following:

- Procurement and commissioning of Pollution Control/Monitoring Equipment
- Environmental monitoring of the core and buffer zone and evaluation of results. Keeping of records to track the surrounding environment quality status.
- > Development of Maintenance schedules for pollution control equipment.
- Ensuring that prescribed standards are maintained.
- Ensuring optimum water usage.
- Implementation of the mitigation measures suggested in EIA/EMP Report.
- > Ensuring greenbelt development/plantation & its maintenance
- Compliance with guidelines and statutory requirements.
- Coordination with statutory bodies, functional groups of the unit, Corporate Project/Environment & Engineering department etc.
- Regular environmental review and performance appraisal.
- Coordination with the vendors dealing in waste supplies and disposal.

#### adani Natural Resources

#### ADANI CEMENT INDUSTRIES LIMITED

- > Ensuring that the waste handling and disposal is carried out as per prescribed conditions.
- > Implementation of the mitigation measures suggested in EIA/EMP Report.
- > Conducting regular training programmes on various environmental requirements especially sustainable development, climate change, environmental monitoring etc.
- > Reporting of compliances and non-compliances (if any) to the Board and other stakeholders.

## **Implementation Matrix of EMP**

Location of PCE	Type of PCE	Maintenance of PCE	Responsibility
Cement Mill	Pulse Jet Bag Filter	Half-yearly	Unit Head
All transfer Points	Dust Collectors	Half-yearly	Unit Head
STP	Modular STP	Monthly	Head EHS - Unit

Monitoring Devices	Location	Frequency of Monitoring	Responsibility
CAAQMS	Plant Boundary (@ 120° distance)	Continuous online System	Head EHS - Unit
CEMS (Stack Monitoring System-Opacity Meter)	Stacks	Continuous online System	Head EHS - Unit
Sampling and testing of Waste-Water	STP outlet	Monthly	Head EHS - Unit
Noise and Vibration	Within and outside plant	Quarterly	Head EHS - Unit

Green Belt Plantation	33% of total plant area	3 years	Head EHS - Unit
Occupational Health and	All on roll and off roll	Routine	Head EHS - Unit
Safety	workers	practice	

## **EMP Budget**

SN	Environment Protection measures	Budget Estimated (Rs. in Lakh)	Budget incurred (Rs. in Lakh)
1	Air pollution control device	1200.0	Completed
2	Water Pollution & Reclamation	100.0	
3	Occupational health and safety	50.0	
4	Environmental Monitoring	100.0	
5	Green Belt Development &	30.0	
	Management		
	Total	1480.0	

## **ATTACHMENT 8-A**

# Implementation of Corporate Responsibility for Environment Protection (CREP)

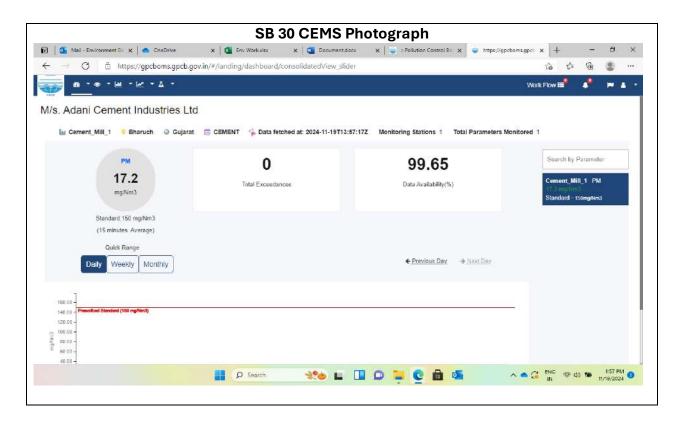
Following activities as per recommendations mentioned in CREP guidelines of CPCB for Cement Plants is being implemented:

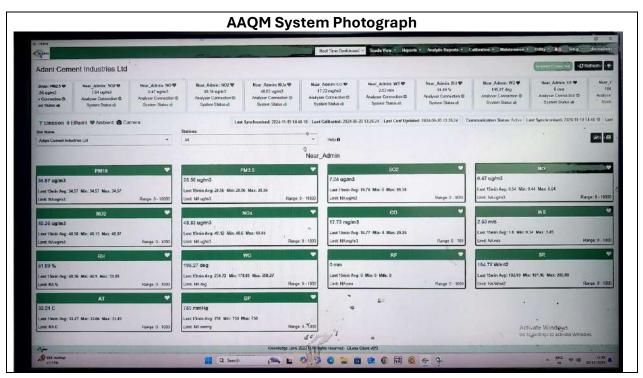
Sr.	CREP Condition	Action Plan
<b>No.</b> 1	Cement plant, which are not complying with notified standards, shall do the following to meet the standards: Augmentation of existing Air pollution Control Devices - by July 2003.  *No compliance units shall submit bank guarantee equivalent to 10% value of Pollution Control Equipment required.	Not applicable
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 50 mg/Nm3.	Not Applicable
3	The new cement kiln to be accorded NOC/Environmental Clearance will meet the limit of 50 mg/Nm3 for particulate matter emission.	All Pollution Control Equipment has been designed to meet the limit of 50 mg/Nm3 for particulate matter emission.
4	The cement industries will control fugitive emission from all raw material and product storage and transfer. However, the National Task Force will decide the feasibility for the control of fugitive emission from limestone and coal storage areas.	Closed storage / silos for Clinker, Fly Ash, Gypsum and Cement has been provided. Bag filters are installed at all material transfer points.
5	After performance evaluation of various types of continuous monitoring equipment and feedback from the industries and equipment manufacturers, NTF will decide feasible unit operation/section for installation of continuous monitoring equipment. The industry will install the continuous monitoring system (CMS).	Continuous monitoring equipment has been installed.
6	Industries will submit the target date to enhance the utilization waste material.	ACL committed to use fly ash up to 35%. ACL is being utilizing Fly ash and Gypsum as waste material generated from pollution control equipment of Thermal Power Plant.
7	NCBM will carry out a study on hazardous waste utilization in cement kiln.	Not applicable
8	Cement industries will carry out feasible study and submit target dates to CPCB cogeneration of power by July-2003.	Not applicable

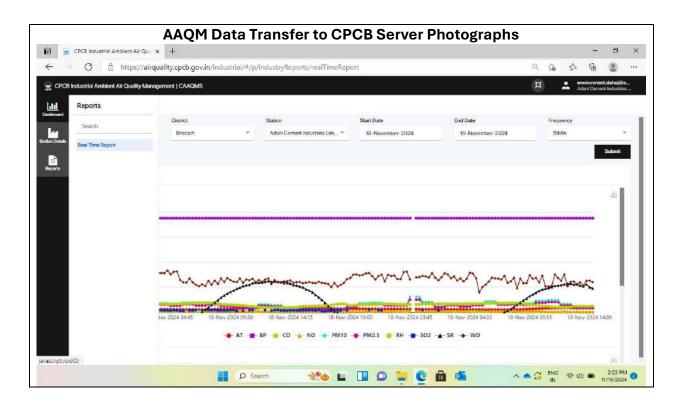
# **Attachment 9**

# **ACIL Dahej Unit Bag Filter List**

Area	Sr	Tag No	Location
BRU and	1	491BF1	Above BRU Belt conveyor 491 BC1
Clinker Silo	2	491BF2	Clinker silo top
Circuit	3	511BF4	Clinker silo feed BE 511 BE01
	4	511BF5	Above clinker hopper HP01
	5	511BF1	Above Clinker Extration belt 511 BC2
Hopper	6	k11BF2	Above Gypsum feed belt K11 BC1
Building	7	K11BF3	Above Gypsum hopper 511 HP3
5.3090010300	8	K11BF4	Above Gypsum hopper 511 HP3 & HP4
	9	531BF1	Above mill feed belt 531 BC1
-	10	561BF1	Above Mill reject bucket elevator belt 531 BC2
	11	561BF2	Above mill reject belt 561 BC1
	12	K11BF01	Above mill reject BE dischage belt 531 BC2
RC	13	591BF2	Above Mill BH hopper discharge air slide 591 AS3
Building	14	591BF1	Above Mill BH hopper discharge air slide 591 AS2
	15	591BF3	Above OPC Cement Silo
	16	592BF1	Above PPC Cement Silo
Fly Ash	17	T9ABF1	Above Fly Ash Silo
Circuit	18	T9ABF3	Above Fly Ash bin
÷	19	611BF1	OPC Silo
Danklan	20	611BF3	To 611BE1 bucket elevator OPC Silo
Packing Plant	21	611BF1	Above 611AS07 air slide PPC Silo
Plant	22	661BF1	Packer area
	23	661BF4	Above packer discharge air slid
HAG	24	L11BF2	Above HAG Raw coal belt L11BC2
HAG	25	L11BF1	Above HAG Raw coal belt L11BC1











#### CORPORATE ENVIRONMENT POLICY

As an integral part of our business philosophy, Ambuja Cements Limited part of Adani Group is committed to contribute towards ensuring a clean and sustainable environment by continually improving our environmental performance.

This policy is applicable to all units with operational and financial control and extends to our value chain, vendors, suppliers, and logistics partners. The suppliers and value chain partners are expected to adhere to the policy and develop an Environment Policy for their own operations.

To achieve this goal, we wholeheartedly and proactively commit ourselves to:

- Conduct all our operations in an environmentally responsible manner that
  is better than statutory environment compliances and applicable
  standards.
- Ensure judicial use of resources including energy, water and raw materials.
- Adopt environmentally safe and advanced process technologies along with best practices for prevention & control of risks and adverse effects of the release of our pollutants to the environment (air, water, and soil) so as to protect health and safety of our employees, contract employees, and community.
- Continuously assess our environmental impacts and measure and improve our environmental performance by adopting best practices for prevention and control of pollution.
- Make continuous efforts to increase the use of non-carbonaceous raw material, renewable energy and fuels and co-processing of wastes to reduce our greenhouse gases (GHG) footprint as part of our Climate Change mitigation initiative.
- Promote circular economy through use of alternate fuels, raw materials and recuse and recycling of waste generated.
- Comply with applicable legal and other requirements including clearances of environment, forest and wildlife, consents, permits, licenses, standards, and leading industry initiatives.

- Make continuous efforts to reduce water intensity and fresh-water usage by increased use of harvested and recycled water in our operations.
- Assess biodiversity quality in all our extraction sites and strive to create a
  positive impact.
- Invest in research and development of environmentally sustainable products which have a low ecological footprint.
- Set targets and objectives to reduce environmental impacts of our operations and establish continuous monitoring mechanisms.
- · Achieve No Net Deforestation as part of our operations.
- Encourage value chain partners to improve their environmental performances.
- Implement and continually improve the Environmental Management System across all our operations.
- Conduct regular training employees to understand the impacts of their work activities on the environment and on judicious use of resources.
- Raise awareness of environmental management policy and environmental impacts for internal and external stakeholders.
- Carry out Environmental Due diligence at the time of business mergers and acquisitions.
- Disclosure of our environmental performance to all applicable stakeholders on a regular basis.

## Roles and Responsibilities

- Unit Heads of the respective sites are responsible for the implementation of this
  policy and EMS at unit level in consultation with Corporate Environment Head.
- Chief Sustainability Officer oversees and holds responsibilities of overall effectiveness of the system implementation, initiatives undertaken across the organizational boundaries.
- Environmental performance and issues are communicated to Management and Board of Directors during quarterly meetings and as per the requirement.

Ajay Kapur

Chief Executive Officer
Cement Business, Adani Group

# Attachment 12























