Date: 26.11.2019



APSEZL/EnvCell/2019-20/049

To

Additional Principal Chief Conservator of Forests (C),

Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Link Road No. – 3, Bhopal – 462 016.

E-mail: rowz.bpl-mef@nic.in

Sub

: Half yearly Compliance report for Environment Clearance for the "Township and area development project" at Survey no. 141 (part), village: Mundra, Dist, Kutch, by M/s. Adam Mundra SEZ Infrastructure Pvt. Ltd."

Ref

: Environment clearance granted to Adami Mundra SEZ Infrastructure Pvt. Ltd. vide letter dated 20th February, 2010 bearing SEIAA letter no. SEIAA/GUJ/EC/8(b)/44/2010.

Dear Sir.

Please refer to the above cited reference for the said subject matter. In connection to the same, it is to state that copy of the compliance report for the Environmental Clearance for the period of April – 2019 to September – 2019 has been submitted through mail communication dated 26.11.2019 and acknowledge of the same with CD (Soft Copy of Compliance Report) is attached here for your records.

Thank you, Yours Faithfully,

For, M/s Adani Ports and Special Economic Zone Limited

Avinash Rai Chief Executive Officer Mundra & Tuna Port

Encl: As above Copy to:

कार्यालय/OFFICE

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालब Ministry of Environment, Forests & Climate Change, क्षेत्रीय कार्यक्ष (क्षेत्रम क्षेत्र)/Regional Office(Western Zene) नोपाल (न.प्र.)/BHOPAL-462016

- Zonal Officer, Regional Office, CPCB Western Region, Parivesh Bhawan, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara – 390 023
- 2) Member Secretary, GPCB Head Office, Paryavaran Bhavan, Sector 10 A, Gandhi Nagar 382 010
- Member Secretary, SEIAA, Gujarat, Paryavaran Bhavan, GPCB, Sector 10 A, Gandhi Nagar 382 010
- 4) Regional Officer, Regional Office GPCB (Kutch East), Gandhidham, 370201

Adani Ports and Special Economic Zone Ltd Adani House, PO Box No. 1 Mundra, Kutch 370 421 Gujarat, India Tel: +912838255000 Fax: +9128382551110 info@adam.com www.adam.com



Environmental Clearance Compliance Report of



Township and
Area Development Project,
Village: Mundra, Dist. Kutch, Gujarat

Of
Adani Mundra SEZ Infrastructure Pvt. Limited

for the period of April-2019 to September-2019



From : Apr'19 To : Sep'19

Status of the conditions stipulated in Environment Clearance

ndex

Sr.	Particulars			
No.			Nos.	
1	EC Compliance	Report	01	
2	Annexures			
	Annexure – 1	Summary of Water Consumption and STP Inlet &	19	
		Outlet		
	Annexure – 2 Six Monthly Environment Monitoring Report		20	
	Annexure – 3 GPCB Treated Water Analysis Report		31	
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	Annexure – 6 Fire Safety Awareness Campaign in townships		34	
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	Annexure – 8	Environment Protection Expenditure	39	

Compliance Report of Environment Clearance



From: Apr'19 To: Sep'19

Status of the conditions stipulated in Environment Clearance

Half yearly Compliance report for Environment Clearance for the project "Township and area development project at Mundra, Dist. Kachchh, Gujarat of M/s. Adani Mundra SEZ Infrastructure Pvt. Ltd." issued vide letter no. SEIAA/GUJ/EC/8(b)/44/2010 dated 20th February 2010.

Sr. No.	Conditions	Compliance Status as on 30-09-2019
A. S _I	pecific Conditions	
A .1	Construction Phase:	
1.	Minimum Aerial distance of 100 m shall be kept between processing & non – processing	Complied during the construction phase. Not applicable at present.
2.	areas of SEZ, as proposed. Height of the buildings in the project shall be restricted to 42 meter (in view of the height restriction specified by the aviation authority) or the height permissible under the bylaws prescribed the SEZ authority, whichever is more stringent. This, however, shall not increase the total population envisaged under the EIA report prepared and submitted to SEAC and SEIAA and shall not increase in	This reply covers Condition No. 1 to 27 of Construction Phase. The details of the compliances with respect to construction phase are submitted in Oct'16 to March'17 compliance report. Construction work for the project is partially completed. However, no construction activity carried out during the compliance period of Apr'19 to Sept'19. All the specific conditions provided for construction phase will be considered upon recommencement of
2(a) 2(b)	the resource consumption like total water usage or wastes generated. The requirement for fire prevention, line safety in relation to fire and fire protection of the building shall be fulfilled in the project, as per the National Building Code of India so as to minimize danger to life and property from fire. All high rise buildings shall have at least two staircases with a condition that the nearest staircases shall be available at every 30 meter from all places in a given building.	construction activity in future.



From : Apr'19 To : Sep'19

Sr.		Compliance Status as on			
No.	Conditions	Compliance Status as on 30-09-2019			
3.	The project proponent shall not	Complied during the construction phase. Not			
	obstruct the flow of river Bhukhi	applicable at present.			
	passing through the social				
	infrastructure area and shall not	The details of the compliances with respect to			
	do any encroachment on the said	construction phase are submitted in Oct'16 to			
	river, as per their undertaking	March'17 compliance report.			
	dated 21/07/2009. All necessary				
	precautions and measures shall	Construction work for the project is partially			
	be taken in order to ensure that	completed. However, no construction activity carried			
	natural drainage of river Bhukhi	out during the compliance period of Apr'19 to			
	passing through the project site	Sept'19.			
4	is not altered / affected.	All the specific conditions provided for construction			
4.	Additional bridge / walkthrough	All the specific conditions provided for construction phase will be considered upon recommencement of			
	over the Bhukhi river passing through the site shall be	construction activity in future.			
	provided between the two	construction activity in rutare.			
	bridges planned to be provided				
	so as to reduce distance to be				
	travelled during the emergency				
	situations.				
5.	If SEZ authority permits,				
	adequate parapet / fencing shall				
	be provided along the banks of				
	river Bhukhi passing through the				
	site for preventing fall of animals				
	/ humans.				
6.	All required sanitary and hygienic				
	measures shall be provided				
	before starting the construction activities and to be maintained				
	throughout the construction				
	phase.				
7.	The construction site shall be				
	provided with adequately				
	barricades of at least 3 m height				
	on its periphery with adequate				
	signage				
8.	Adequate first aid facilities shall				
	be provided in the project both				
	during construction and				
	operation of the project.				



From : Apr'19 To : Sep'19

Cr.	Compliance Status as on					
Sr. No.	Conditions	Compliance Status as on 30-09-2019				
9.	Adequate drinking water,	Complied during the construction phase. Not				
7.	sanitation and other amenities	applicable at present.				
	shall be provided for	applicable at present.				
	construction workers at the site.	The details of the compliances with respect to				
	The safe disposal of wastewater	construction phase are submitted in Oct'16 to				
	and solid wastes generated	March'17 compliance report.				
	during the construction phase					
	should be ensured.	Construction work for the project is partially				
10.	Provision should be made for the	completed. However, no construction activity carried				
	supply of fuel (Kerosene or	out during the compliance period of Apr'19 to				
	cooking gas), utensils such as	Sept'19.				
	pressure cookers etc. to the					
	laborers during construction	All the specific conditions provided for construction				
11	phase.	phase will be considered upon recommencement of				
11.	The project proponent shall ensure that the construction	construction activity in future.				
	labours are provided with					
	adequate amenities for lighting,					
	drinking water, sanitation etc. to					
	ensure that do not ruin the					
	existing environmental					
	condition.					
12.	Adequate personal protective					
	equipments shall be provided to					
	the construction workers to					
	ensure their safety and the					
	project proponent shall ensure					
12	its usage by the labours.					
13.	All topsoil excavated during construction activities should be					
	stored separately for use in					
	horticultural / landscape					
	development within the project					
	site.					
14.	Disposal of debris including the					
	excavated material during					
	construction phase shall not					
	create adverse effect on					
	neighbouring communities and					
	shall be disposed of only at the					
	approved sites with the approval					
	of the competent authority after					
	taking the necessary precautions					
	for general safety and health					



From : Apr'19 To : Sep'19

Cr		Compliance Status as on
Sr. No.	Conditions	Compliance Status as on 30-09-2019
140.	aspects.	00 07-2017
15.	Use of diesel generator sets during construction phase should be enclosed type and	Complied during the construction phase. Not applicable at present.
1/	confirm to EPA rules for air and noise emission standards.	The details of the compliances with respect to construction phase are submitted in Oct'16 to
16.	Ready-made mix concrete should be used so far as possible	March'17 compliance report.
17.	Water demand during construction should be reduced by use of curing agents, plasticizers and other best practices.	Construction work for the project is partially completed. However, no construction activity carried out during the compliance period of Apr'19 to Sept'19.
18.	Vehicles hired for bringing construction material at site should be in good conditions and confirm to applicable air and noise emission standards and should be operated only during non-peak hours.	All the specific conditions provided for construction phase will be considered upon recommencement of construction activity in future.
19.	Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality should be closely monitored during construction phase.	
20.	Fixtures for showers, toilet, flushing and drinking should be of low flow either by use of aerator or pressure reducing devices or sensor based control.	
21.	Fly ash should be used as building material in the construction as per provision of Fly Ash Notification under EPA.	
22.	Structural design aspects in accordance to the seismic zone shall be strictly adhered to.	
23.	No ground water shall be used and the water required during construction phase shall be sourced from Gujarat Water Infrastructure Ltd.	



From: Apr'19 To: Sep'19

Sr.		Compliance Status as on			
No.	Conditions	Compliance Status as on 30-09-2019			
24.	The construction materials and	Complied during the construction phase. Not			
24.	debris shall be properly stored	applicable at present.			
	and handled to avoid negative	applicable at present.			
	impacts such as air pollution and	The details of the compliances with respect to			
	public nuisances by blocking the	construction phase are submitted in Oct'16 to			
	roads and public passages.	March'17 compliance report.			
	Appropriate barricading shall be	· ·			
	done and signboards shall be put	Construction work for the project is partially			
	at such site.	completed. However, no construction activity carried			
25.	Ambient Air Quality Monitoring /	out during the compliance period of Apr'19 to			
	Noise monitoring shall be carried	Sept'19.			
	out during the construction. The				
	location of ambient air quality	All the specific conditions provided for construction			
	monitoring stations and its	phase will be considered upon recommencement of			
	frequency shall be decided in	construction activity in future.			
	consultation with GPCB.				
26.	The provisions of the buildings				
	and other construction workers				
	rules shall be met with by the				
	project proponent in addition to				
	other statutory requirements				
	under different environmental				
	pollution control and safety related acts and rules.				
27.	Environment Management Cell				
27.	shall be formed, which will				
	supervise and monitor the				
	environment related aspects of				
	the project during construction				
	and operational phases in				
	addition to observance of				
	Gujarat Building and other				
	constructions workers act and				
	rules including registration of				
	the project under this act.				
A.2	Operation Phase:				
28.	Fresh water requirement during	Complied.			
	the operation phase shall not				
	exceed 9 MLD and it shall be	No ground water is being extracted.			
	sourced from Gujarat Water				
	Infrastructure Ltd. Metering of	Fresh water requirement for Samudra township and			
	the water shall be done and its	Adani Hospital is approximately 1.2 MLD during			
	records shall be maintained. No	compliance period which is sourced through Gujarat			
	ground water shall be extracted.	Water Infrastructure Ltd. (GWIL) pipeline from			



From: Apr'19 To: Sep'19

Sr. No.	Conditions	Compliance Status as on 30-09-2019					
		Narmada water supply and APSEZ desalination plar No ground water is being extracted.					
		Record maint during the per Annexure – 1.					
29.	The total sewage generation from the proposed social infrastructure project shall not exceed 7.2 MLD.	Average quant at Samudra to Average quan	wnship tity of t	and 14 K reated se	LD at Ad ewage di	ani Hospital. scharge was	
		690 KLD du sewage is be horticultural p	eing tre	•	•		
		Details of se discharge dur attached as Ar	ing the	period			
30.	The project proponent shall install and operate adequate sewage treatment plants (STP) comprising of 3 modules of STP (each of 2.5 MLD) to achieve ultimate capacity of 7.5 MLD, for treatment of sewage. These STP	STP having capacity of 2.5 MLD is constructed and operated in township area. Treated sewage is utilized for horticulture purposes after achieving discharge norms of GPCB.				ge is utilized	
	modules shall be operated regularly and effectively to achieve the GPCB norms.	d One STP having capacity of 30 KLD is constructed					
		Third party analysis of the treated water is bei carried out twice in a month by NABL and MoEF&G accredited agency namely M/s. Pollucon Laborato Pvt. Ltd. Summary of the same for duration fro April' 19 to Sept'19 is mentioned below. Locations: O2 STPs (Township & Hospital)				nd MoEF&CC n Laboratory uration from	
		Parameters	Unit	Min	Max	Perm. Limit\$	
		рН		7.12	7.89	6.5 – 8.5	
		TSS	mg/L	10	28	100	
		BOD (3 Days @ 27 °C)	mg/L	4	19	30	
		Residual Chlorine	ppm	0.2	0.8	Min. 0.5	
		Fecal Coliform	MPN/ 100ml	120	350	< 1000	
				\$	as per CC&A	granted by GPCB	



From: Apr'19 To: Sep'19

Sr. No.	Conditions	Compliance Status as on 30-09-2019
		Please refer Annexure – 2 for detailed analysis reports. Approx. INR 11.23 Lakh is spent for all environmental monitoring activities during the FY 2019-20 (Till Sep'19).
		GPCB is also doing sampling and analysis of treated water during their routine visit and its latest report is attached as Annexure – 3 .
31.	Two modules of STP of 2.5 MLD (i.e. total 5 MLD) shall be installed on one side of the Bhukhi River and one module of STP of 2.5 MLD shall be installed on the other side of the Bhukhi River passing through the social infrastructure project. Hence no any cross drainage civil work	At present one STP of 2.5 MLD is installed on one side of Bhukhi river for Samudra Township and one STP of 30 KLD is installed on other side of Bhukhi river for Adani Hospital. Hence no cross drainage civil work is carried out at AMSIPL Area.
32.	shall be carried out. Out of total 7.2 MLD of treated	Complied.
32.	sewage conforming the GPCB norms, 2 MLD treated sewage shall be utilized within the project area for plantation / gardening whereas balance 5.2 MLD of treated sewage shall be utilized in the identified area of MPSEZL for plantation / gardening.	During Apr'19 to Sept'19 avg. 690 KLD of treated water was used for gardening / plantation purpose within township area / APSEZ area.
33.	infrastructure project.	During Apr'19 to Sept'19 avg. 690 KLD of treated water was used for gardening / plantation purpose within township area / APSEZ area. Hence in no case, the wastewater / treated sewage is discharged into the river Bhukhi passing through the social infrastructure project.
34.	Best available technology shall be used for disinfection of treated sewage before reuse / discharge.	Complied. Chlorination treatment is provided for disinfection before reuse.
35.	Rain water harvesting of roof top run off of the building to be constructed as a part of social infrastructure as per the plan	Complied. Location of rain water harvesting was earmarked at one of location in identified SEZ area based on direction of flow of storm water channel. However



From: Apr'19 To: Sep'19

Sr.	Conditions	Compliance Status as on
No.		30-09-2019
	submitted shall be implemented. Before recharging the rain water, pre-treatment must be done to remove suspended matter.	underground water is saline in nature due to sea water ingress and harvested water is likely to get contaminated in high tide. The project will be taken up upon finding out the solution for rain water harvesting within project boundary.
36.	The Municipal Solid Waste (MSW) shall be properly collected and segregated at source and it shall be disposed as per the guidelines of the MSW Rules 2000, as may be amended time to time. The dried biomass from the STP will be used as manure in gardening / plantation.	Complied. A well-established system for Municipal Solid Waste (MSW) management is in place. Municipal solid waste collection from AMSIPL area is being done on daily bases. Collected dry waste is being transported to Material Recovery Facility (MRF) where it is being sorted out in different streams e.g. paper/plastic/cardboard/glass/metal. These sorted wastes are further transported for recycling. AMSIPL has installed Organic Waste Converter within premises for converting food waste in to manure and / or biogas. Generated manure is being utilized by horticulture department in green belt area and biogas is being utilized in kitchen area for cooking food. Total 442 MT of organic waste + food waste was handled and processes for converting in to reach manure and bio gas during the compliance period i.e. Apr'19 to Sept'19 and utilized within APSEZ area. Dry waste collection drive including plastic free drive and
37.	The Bio-medical Waste (BMW)	waste segregation drive is being organised on regularly basis. Complied.
	shall be disposed as per guidelines of BMW rules 1998 as may be amended from time to time.	Multispecialty hospital has taken the necessary approvals from GPCB for the disposal of Bio Medical Waste. Total 1343 kg of bio medical waste was disposed to Common Bio Medical Waste Treatment facility during the compliance period by M/s Distormed Kutch Services Pvt. Ltd., Bhuj at the frequency of once in two days. Log book showing the record of Bio-medical Waste collection is attached as Annexure – 4.
38.	Hazardous wastes, if any generated during the operation phase shall be handled as per the	Point Noted. No hazardous waste was generated during the compliance period of Apr'19 to Sept'19.



From: Apr'19 To: Sep'19

Sr.		Compliance Status as on
No.	Conditions	Compliance Status as on 30-09-2019
	Hazardous Waste (Management, Handling & Transboundary Movement) Rules 2008, as may be amended from time to time.	If any hazardous waste generation in future, it will be dispose through authorised agency only as per Hazardous Waste Rules – 2016.
39.	54,600 sq.m. area shall be earmarked for the parking purpose as proposed. The area earmarked for the parking shall be used for parking only. No other activity shall be permitted in this area.	Complied. Construction work for the project is partially completed. Entire parking area is earmarked for parking as per National Building Code requirement within township premises. This parking is used for said purpose only.
40.	Necessary signage including continuous display of status of parking availability at entry, exit and all other appropriate places shall be provided which should have appropriate size of letters and shall be visible from the at least 50 meter distance from the adjacent road.	Complied. Project is under development and area is earmarked for parking area as per National Building Code requirement. Trained security guards are deputed round the clock to guide/help for entry, exit and parking. Continuous display regarding status of parking availability will be installed once project is in full-fledged operation.
41.	No public space shall be used or blocked for the parking and the trained staff shall be deployed to guide the visitors for parking and helping the senior citizens and physically challenged people	Complied. Adequate parking area has been provided as per National Building Code. Trained security guards are available round the clock to guide/help for entry, exit and parking to senior citizens and physically challenged people.
42.	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided.	Complied. Separate entry and exits have been provided at main gate with architectural divider for proper traffic management. Appropriate arrangements are made for emergency situations.
43.	Common utilities like drinking water facility, toilets etc shall be provided on each floor with adequate signage thereof. Adequate distance shall be maintained between the drinking water and toilet blocks.	Common utilities like drinking water facility, toilets etc. are provided at Adani Hospital and commercial building with adequate distance between drinking water & toilet facilities.
44.	The green belt shall be developed in 50 Hectares area in terms of peripheral green belt around the project site, road side plantation and green belt on either side of the Bhukhi river.	Complied. AMSIPL has developed 55.93 ha area as green belt with plantation of 65506 saplings in AMSIPL premises. The open spaces inside the social infrastructure project are suitably landscaped and



From: Apr'19 To: Sep'19

Sr.	Compliance Status as on			
No.	Conditions	Compliance Status as on 30-09-2019		
140.	The project proponent shall plant	covered with green lawn and other vegetation.		
	at least 20,000 trees in green belt, as proposed. The open spaces inside the social infrastructure project shall be suitably landscape and covered with vegetation of indigenous variety.	So, far APSEZ has developed 467 ha. area as greenbelt with plantation more than 8.7 Lacs saplings within the APSEZ area. Details of the green belt development activity done by APSEZL, Mundra are attached as Annexure – 5 .		
45.	The area earmarked as green area shall be used only for green belt and shall not be altered for any other purpose. The fund earmarked for green belt development shall not be diverted for any other purpose.	Complied. The area earmarked as green area is used only for green belt and not altered for any other purpose. Separate budget for the horticulture department is earmarked every year. The spent budget of Horticulture Department for the period of financial year 2019-20 (Till Sep'19) is INR 547 lacs. Details upon green belt development are provided in condition no. 44 above.		
46.	The project proponent shall explore the application of solar energy and shall be incorporated for the illumination of common areas, lighting of internal roads and passages in addition to solar water heating, if any.	Solar power system of 1.5 MW at roof top of residential blocks of Samudra Township and 69 KW at Adani Hospital has been installed and commissioned. Information has been already submitted to MoEF&CC along with Half Yearly Compliance Report Apr'16 to Sep'16. Total 1205 MWH of solar power generated and supplied to the grid energy during compliance period i.e. Apr'19 to Sep'19.		
47.	The acoustic enclosures shall be installed at all noise generating equipments and the noise level shall be maintained as per the MoEF / CPCB guidelines / norms both during day and night time.	Complied. D.G. Sets having acoustic enclosures are provided as stand-by and used in case of main power failure only. However, regular noise monitoring is being carried out. Noise (once in a month) monitoring is being carried out by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratory Pvt. Ltd. Summary of the same for duration of April 19 to Sept'19 is mentioned below. Total Sampling Locations & Frequency: 2 Nos. (Monthly)		



From : Apr'19 To : Sep'19

Sr. No.	Conditions		Compliance Status as on 30-09-2019				
			Noise	Unit	Min	Max	Perm. Limit ^{\$}
			Day Time	dB(A)	52.1	72.1	75
			Night Time	dB(A)	48.4	68.4	70
48.	The project proponent shall install the electric appliances, which are energy efficient and meeting with the Bureau of Energy Efficiency norms, wherever applicable.	re A C S b e	eports. App nvironmenta pril 19 to Se omplied. nergy Cons ensor (Occ	erox. IN al monit ept'19. ervation swit e providoliances	rure – 2 R 11.23 L oring activ n through ch) & AC ded. AMSI	for de akh is dities du la	tion of Motion c. Controls in sinstalled the Energy



From : Apr'19 To : Sep'19

Sr. No.	Conditions	Compliance Status as on 30-09-2019							
49.	The energy audit shall be conducted at regular interval for the project and the recommendations of the audit report shall be implemented with spirit.	Energy audit is carried our once in a three years. Last audit was carried out on 21.01.2017 by M/s. Mitcon Consultancy & Engineering Services Ltd. Energy audit report for Samudra Township was submitted as a part of compliance report for the duration of Apr'17 to Sep'17. Compliance status of audit recommendations is as below.							
		Sr. No.	Energy Saving Area Energy Saving by shifting	Compliance Status Completed.					
		load of Block C1 TRF06 on TRF04 and isolating TRF06 2 Energy Saving by replacing Recirculation Pump with New High efficient pump their useful life. The replacement pump will be done on expiry of their useful life.							
		3 Energy Saving by Suction Cleaning in Raw sewage water pump 1 4 Replacement of 70 W MH Cleaning in Raw sewage water pump 1 Completed.							
		5	with 21 W LED in parking lights Replacement of conventional ceiling fans	The replacement conventional ceiling fans					
		6	with energy efficient fans Replacement of 44 W CFL with 21 W LED in parking lights	will be done on expiry of their useful life. Completed.					
50.	The roof should meet regulatory requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirements.	Complied. Energy Conservation Building Code is considered during the development of buildings.							
51.	Use of glass shall be minimal to reduce the electricity consumption and load on airconditioning.	Complied. Minimal glass is used in air conditioning areas to reduce electricity consumption and load on airconditioning.							
52.	Risk estimation shall be carried out for the project and disaster management plan shall be	Comp	<u> </u>	s prepared by Trivedi &					



From: Apr'19 To: Sep'19

Sr. No.	Conditions	Compliance Status as on 30-09-2019					
	prepared and its recommendations shall be implemented in the time bound manner.	Associates Technical Services Pvt. Ltd in August, 2015 for AMSIPL which included risk estimation for medical emergency, fire emergency, natural calamities.					
		Detail are submitted to the MoEF & CC along with half yearly compliance report for the period from Apr – 2015 to Sep – 2015.					
		Various plans as fire service plan, communication plan, mutual aid plan, and evacuation plan are implemented to combat with emergency situations.					
53.	The raw water sumps will be equipped with suction differential head / partition so as to insure that minimum 500 KL water shall remain reserved as fire water as proposed.	Complied. 250 KL of fire water is reserved with fire hydrant system for Adani hospital. Approximately 400 KL water is available in 6 different water tanks at various sectors of Samudra Township. In total, more than					
54.	Necessary emergency lighting system along with emergency power back up system shall be provided. In addition, emergency public address system arrangement and signage for emergency exit route shall be provided on each floor.	Complied. Power is supplied through M/s MPSEZ Utilities Private Limited to the project site. Power failure is the rarest situation in the area and in case of such emergency, there is provision of 125 KVA D.G. set at Samudra Township and 500 KVA D.G. set at Adani Hospital.					
		Public address system is available with the security staff in the vicinity.					
		Emergency contact is display each block as below Security control 8980048877 Township Security control 8980015046 Medical Adani hospital 2838-619555 reception Medical Emergency Number 2838-619667					
		Medical Emergency mobile 7574848413 Number Fire control room- 2838-255801 Fire control room mob. 9879114996					
55.	Necessary auto glow, signage at all appropriate places shall be provided to guide the people	Complied. Auto glow signage is provided at adequate locations					



From: Apr'19 To: Sep'19

C		Compliance Status as an					
Sr. No.	Conditions	Compliance Status as on 30-09-2019					
NO.	towards exits and assembly	to provide guidance to the people towards exits. Also					
	points during the unforeseen emergency and eventuality conditions.	the township & Adani Hospital is under security guard surveillance to combat with unforeseen emergency conditions. Photograph showing the auto glow signages were submitted along with compliance report submission for the duration of Oct'16 to Mar'17. Photographs showing the emergency signages were submitted along with last EC Compliance report for the period Apr'18 to Sep'18.					
56.	Training to the staff for the First Aid and Fire Fighting Alarm with	Complied.					
	regular mock drill shall be conducted regularly and shall be made in integral part of the disaster management plan of the project.	For first aid situations a First Aid centre is provided at Samudra Township. Multispecialty Hospital is part of the project activity which can be utilised for medical emergencies.					
		Regular mock drill is also conducted at project site. The report of the same was submitted as a part of compliance report for the duration of Apr'17 to Sep'17. Awareness session was carried out for home fire safety awareness at Samudra Township & pasting of LPG fire safety stickers. Total 734 families of Samudra Township were educated regarding LPG fire safety and LPG fire safety stickers pasted in their homes. Details of the same were submitted along with last EC Compliance report for the period Apr'18 to Sep'18.					
		APSEZ fire services conducted doorstep vehicle fire safety inspection and awareness programme in residential townships and checked almost 400 LMVS according to exhaustive checklist stressing on fire prone conditions of vehicle. Also pasted/provided a sticker to the LMV owner so that he/she can have a look and recollect our Fire safety awareness points. Details of the same are attached as Annexure – 6 .					
57.	Ozone Depleting Substance (Regulation and Control) rules shall be followed while designing	Complied. Ozone Depleting Substance inventory was produced					
	the air conditioning system of the project.	and is maintained during the compliance period of Oct'18 to Mar'19. New gas being used in refilling is ozone friendly in nature.					
58.	Environment Management Cell	Complied.					
	shall be formed by the project						



From: Apr'19 To: Sep'19

C=			Complian	oo Ctotuu					
Sr. No.	Conditions	Compliance Status as on 30-09-2019							
	proponent during operation phase which will supervise and monitor the environment related aspects of the project including incremental pollution loads on the ambient air quality, noise and water quality periodically till the management of the project remains with the project proponent.	APSEZL as group has a well structured Environment Cell, staffed with qualified manpower for implementation of the Environmental Monitoring and Management Plan. Organogram showing Environment Management Cell is attached as Annexure – 7. Ambient Air Quality (twice in a week) and Noise (once							
		Total Samplin	g Location	ns & Freq	uency: 2 N	los.			
		Parameter	Unit	Max	Min	Perm. Limit ^{\$}			
		PM ₁₀	μg/m³	87.33	45.34	100			
		PM _{2.5}	μg/m³	46.29	18.53	60			
		SO ₂	μg/m³	24.38	6.48	80			
		NO ₂ μg/m³ 42.66 14.31							
		Noise	Unit	Max	Min	Perm. Limit			
		Day Time	dB(A)	72.1	52.1	75			
		Night Time	dB(A)	68.4	48.4	70			
		Please refer reports. Appr environmenta FY 2019-20 (T	ox. INR I monitorii	= - 2 fo 11.23 La ng activit	or detaile kh is spe	ent for all			
B. G	eneral Conditions								
59.	The project proponent shall permit the outside people to use the social infrastructures like hospital, schools, colleges etc. coming up in the proposed project, as per their undertaking dated 21/07/2009.	Outside people are allowed to use the social infrastructures like hospital and school. Total 5,592 patients including OPD (Out Patients)							



From: Apr'19 To: Sep'19

Sr.	Conditions	Compliance Status as on
No.	Conditions	30-09-2019
		villagers during the compliance period Apr'19 to Sep'19.
60.	Various provisions of the Environment (Protection) Act, 1986 and the Rules / Notifications issued there under by the Ministry of Environment and Forest, Govt. of India, from time to time shall be strictly complied with.	Point noted.
62.	No further expansion or modification in the plant shall be carried out without prior approval of the MoEF/SEIAA as the case may be. In case of deviations or alterations in the project proposal from those submitted to MoEF / SEIAA / SEAC for clearance, a fresh reference shall be made to the SEIAA / SEAC to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Point noted.
62.	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.	Separate budget for the Environment cell is earmarked every year. All environmental and horticulture activities are considered at group level
63.	The applicant shall inform the public that the project has been accorded Environmental Clearance by the SEIAA and i.e. copies of the clearance letter are available with the GPCB and may	Already complied. Not applicable at present. The advertisement was circulated in Gujarati language through local newspaper – Kutchh Mitra as well as in English language through local newspaper – Indian Express on the date of 10.03.2010.



From: Apr'19 To: Sep'19

Sr. No.	Conditions	Compliance State 30-09-201					
	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 newspaper 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.	Information has been already submitted to MoEF & CC along with half yearly compliance report April – 2015 to Sep – 2015.					
64.	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.	Compliance report of EC conditions is uploaded regularly. Last compliance report including results of monitoring data for the period of Oct'18 to Mar'19 was submitted to Regional Office of MoEF&CC @ Bhopal, Zonal Office of CPCB @ Baroda, GPCB @ Gandhinagar & Gandhidham and Dept. of Forests &					
		Sr. no. Compliance period Date of submission 1 Apr'16 to Sep'16 01.12.2016 2 Oct'16 to Mar'17 30.05.2017 3 Apr'17 to Sep'17 01.12.2017 4 Oct'17 to Mar'18 29.05.2018 5 Apr'18 to Sep'18 30.11.2018 6 Oct'18 to Apr'19 31.05.2019					
65.	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	Point noted.					
66.	The project authorities shall inform the GPCB, regional office of MoEF and SEIAA about the	Complied					



From: Apr'19 To: Sep'19

Sr. No.	Conditions	Compliance Status as on 30-09-2019
67.	date of financial closure and final approval of the project by the concerned authorities and the date of start of the project. The SEIAA may revoke or	Point noted.
	suspend the clearance, if implementation of any of the above conditions is not found satisfactory.	
68.	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. The above conditions will be enforced inter-alia under the provisions of the water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, the environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Complied. The company has implemented the provided conditions and the compliance report is being submitted regularly. Please refer Condition No. 64 for further details.
69.	This environmental clearance is valid for five years from the date of issue.	Point noted.
	Additional condition – (ame SEIAA/GUJ/EC/8(b)/44/2010 date	ndment to Environment Clearance Order No. ed 20 February 2010
	The applicant shall carry out comparative carbon footprint study of low rise building with large ground coverage v/s high rise building with low ground coverage through reputed institute like CEPT or GIDR and submitted to SEIAA within one year from the issuance of EC.	Comparative carbon footprint study report submitted to the MoEF & CC along with half yearly compliance report Oct – 2014 to March – 2015.

Annexure – 1



<u>ANNEXURE – 1</u>

Water Consumption and Wastewater Generation Details for AMSIPL (Apr'19 to Sep'19)

Month	Water Consumption, KL	STP Water Inlet, KL	STP Water Outlet, KL
Apr'19	34,844	24,794	21,571
May'19	34,917	24,287	20,372
June'19	38,951	22,231	18,809
July'19	43,250	25,986	22,884
Aug'19	36,773	21,643	20,265
Sep'19	32,287	23,261	10,134
Total	2,21,022	1,42,202	1,14,035

Note: Treated sewage water is completely reused for gardening purpose

Annexure – 2

Recognised by MoEF. New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



ADANI MUNDRA SEZ INFRASTRUCTURE PVT.LTD. TAL: MUNDRA, KUTCH, MUNDRA – 370 421

MONITORING PERIOD: APRIL 2019 TO SEPTEMBER 2019

PREPARED BY:



POLLUCON LABORATORIES PVT.LTD.

PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY, OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART, NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007.

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ISO 14001:2015

OHSAS 18001:2007

ISO 9001:2015

TC - 5945

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RESULTS OF STP WATER OUTLET

			AMSIPL SAMUNDRA TOWNSHIP STP OUTLET								
SR. NO	TEST PARAMETERS	Unit	April-19		May	lay-19 June-		e-19	GPCB		
			05/04/ 2019	18/04/ 2019	07/05/ 2019	20/05/ 2019	03/06/ 2019	18/06/ 2019	Permissibl e Limit	TEST METHOD	
1	рН		7.99	7.72	7.56	7.52	7.62	7.75		IS3025(P11)83Re.02	
2	Total Suspended Solids	mg/L	12	28	23	20	18	14	30	IS3025(P17)84Re.02	
3	BOD (3 days @ 270 C)	mg/L	8	16	10	12	19	13	20	IS 3025 (P44)1993Re.03Edition 2.1	
4	Residual Chlorine	mg/L	0.5	0.6	0.6	0.8	0.4	0.5	Min 0.5	APHA(22ndEdi)4500 Cl	
5	Fecal Coliform	MPN/ 100 ml	150	170	170	130	150	150	< 1000	APHA (22ndEdi) 9221 C&E	

			AMSIPL SAMUNDRA TOWNSHIP STP OUTLET								
SR. NO	TEST PARAMETERS	Unit	July-19		Augu	ust-19 Septembe		ber-19	GPCB		
			02/07/ 2019	16/07/ 2019	05/08/ 2019	19/08/ 2019	04/09/ 2019	17/09/ 2019	Permissible Limit	TEST METHOD	
1	рН		7.54	7.36	7.18	7.46	7.26	7.41		IS3025(P11)83Re.02	
2	Total Suspended Solids	mg/L	24	10	28	15	25	16	30	IS3025(P17)84Re.02	
3	BOD (3 days @ 270 C)	mg/L	16	12	12	10	15	13	20	IS 3025 (P44)1993Re.03Editio n2.1	
4	Residual Chlorine	mg/L	0.2	0.3	0.4	0.5	0.5	0.4	Min 0.5	APHA(22ndEdi)4500 Cl	
5	Fecal Coliform	MPN/ 100 ml	120	170	280	140	350	150	< 1000	APHA (22ndEdi) 9221 C&E	

H. T. Shah Dr. ArunBajpai

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			ADANI HOSPITAL STP OUTLET								
SR. NO	TEST PARAMETERS	Unit	Apr	il-19	May-19		June-19		GPCB		
			05/04 /2019	18/04/ 2019	07/05/ 2019	20/05/ 2019	03/06/ 2019	18/06/ 2019	Permissible Limit	TEST METHOD	
1	рН		7.99	7.75	7.84	7.49	7.89	7.79		IS3025(P11)83Re.02	
2	Total Suspended Solids	mg/L	13	24	18	20	10	24	30	IS3025(P17)84Re.02	
3	BOD (3 days @ 270 C)	mg/L	6	18	10	13	17	15	20	IS 3025 (P44)1993Re.03Edition 2.1	
4	Residual Chlorine	mg/L	0.5	0.6	0.6	0.2	0.3	0.3	Min 0.5	APHA(22ndEdi)4500 Cl	
5	Fecal Coliform	MPN/1 00 ml	240	210	220	170	210	280	< 1000	APHA (22ndEdi) 9221 C&E	

^{*}Below Detection limit

			ADANI HOSPITAL STP OUTLET								
SR. NO	TEST PARAMETERS	Unit	July-19		Augu	st-19 September-19		GPCB			
			02/07/ 2019	16/07/ 2019	05/08/ 2019	19/08/ 2019	04/09/ 2019	17/09/ 2019	Permissible Limit	TEST METHOD	
1	рН		7.56	7.42	7.31	7.25	7.12	7.15		IS3025(P11)83Re.02	
2	Total Suspended Solids	mg/L	18	16	12	11	15	13	30	IS3025(P17)84Re.02	
3	BOD (3 days @ 270 C)	mg/L	12	18	10	12	17	4	20	IS 3025 (P44)1993Re.03Edition 2.1	
4	Residual Chlorine	mg/L	0.2	0.2	0.3	0.4	0.4	0.4	Min 0.5	APHA(22ndEdi)4500 Cl	
5	Fecal Coliform	MPN/ 100 ml	220	240	210	280	280	170	< 1000	APHA (22ndEdi) 9221 C&E	

^{*}Below Detection limit

H. T. Shah

Dr. ArunBajpai

Lab Manager

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RESULTS OF AMBIENT AIR QUALITY MONITORING

	SAMUDRA TOWNSHIP STP							
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m3	Particulate Matter (PM _{2.5}) µg/m3	Sulphur Dioxide (SO ₂) µg/m3	Oxides of Nitrogen (NO ₂) µg/m3			
1	02/04/2019	70.37	33.52	19.59	14.31			
2	03/04/2019	67.22	27.64	6.60	18.36			
3	08/04/2019	59.31	35.72	17.50	35.70			
4	10/04/2019	72.34	30.25	8.65	24.39			
5	15/04/2019	64.24	36.22	14.29	20.32			
6	17/04/2019	52.67	31.66	16.36	29.45			
7	22/04/2019	68.64	29.46	18.22	34.59			
8	24/04/2019	74.50	42.30	11.23	32.56			
9	29/04/2019	62.31	24.37	15.59	28.64			
10	01/05/2019	57.61	36.38	16.35	33.52			
11	06/05/2019	62.76	33.48	22.43	36.59			
12	09/05/2019	79.69	46.29	19.23	31.59			
13	13/05/2019	67.88	26.73	11.47	21.55			
14	15/05/2019	76.39	34.27	10.31	25.33			
15	20/05/2019	63.72	39.20	12.68	37.47			
16	22/05/2019	73.26	30.50	20.29	41.27			
17	27/05/2019	68.59	38.41	17.55	23.74			
18	29/05/2019	70.41	35.35	18.28	40.56			
19	03/06/2019	67.48	30.50	9.19	22.40			
20	05/06/2019	56.37	24.32	14.52	18.67			
21	10/06/2019	74.62	45.46	12.38	33.52			
22	17/06/2019	70.26	27.60	20.26	31.21			
23	19/06/2019	64.25	37.50	17.77	36.85			
24	24/06/2019	71.58	42.27	7.62	27.59			
25	26/06/2019	68.64	33.52	15.36	30.51			
26	01/07/2019	62.46	33.57	21.30	42.66			
27	03/07/2019	72.63	36.26	18.65	21.56			
28	08/07/2019	57.35	30.42	11.53	39.15			
29	10/07/2019	74.37	29.46	22.37	32.41			
30	15/07/2019	63.89	24.20	9.82	24.07			

Continue..

H. T. Shah

Dr. ArunBajpai

Lab Manager



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	SAMUDRA TOWNSHIP STP						
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m3	Particulate Matter (PM _{2.5}) µg/m3	Sulphur Dioxide (SO ₂) µg/m3	Oxides of Nitrogen (NO ₂) µg/m3		
31	17/07/2019	58.61	39.24	12.69	29.61		
32	22/07/2019	65.33	25.67	10.54	38.70		
33	24/07/2019	52.39	22.38	8.66	19.72		
34	29/07/2019	67.22	42.56	13.59	35.67		
35	31/07/2019	58.38	38.41	20.31	26.44		
36	05/08/2019	54.39	29.46	6.86	22.80		
37	07/08/2019	62.41	31.53	8.47	20.46		
38	12/08/2019	58.75	22.34	10.59	37.44		
39	14/08/2019	73.42	26.36	18.61	28.45		
40	19/08/2019	55.36	20.26	13.64	17.63		
41	21/08/2019	79.61	37.50	17.42	31.56		
42	26/08/2019	69.24	32.45	9.55	34.60		
43	28/08/2019	50.34	35.76	14.54	25.65		
44	03/09/2019	51.88	25.40	19.46	31.63		
45	05/09/2019	67.20	23.66	16.56	26.44		
46	09/09/2019	54.47	19.48	12.48	16.36		
47	11/09/2019	65.72	22.50	14.59	27.69		
48	16/09/2019	59.41	26.60	8.68	30.43		
49	18/09/2019	63.59	29.50	21.59	25.52		
50	23/09/2019	73.62	33.86	13.72	22.53		
51	25/09/2019	56.37	20.60	9.70	33.56		
52	30/09/2019	71.71	38.58	17.58	28.41		
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May- 2011)	Gravimetric- CPCB - Method (Vol.I,May- 2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH- NaAsO2)		

H. T. Shah Dr. ArunBajpai

Lab Manager (Q) **Lab Manager**



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RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP CUSTOMER CARE							
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m3	Particulate Matter (PM _{2.5}) µg/m3	Sulphur Dioxide (SO ₂) µg/m3	Oxides of Nitrogen (NO ₂) µg/m3		
1	02/04/2019	48.64	21.65	13.63	22.65		
2	03/04/2019	62.34	33.45	16.26	27.54		
3	08/04/2019	52.64	30.21	10.64	31.54		
4	10/04/2019	64.21	27.59	14.64	28.37		
5	15/04/2019	51.65	23.40	8.58	15.77		
6	17/04/2019	74.59	40.22	11.69	25.33		
7	22/04/2019	49.67	20.53	20.44	29.33		
8	24/04/2019	69.28	38.49	9.40	23.64		
9	29/04/2019	73.46	29.34	19.55	17.32		
10	01/05/2019	72.76	45.71	21.22	36.50		
11	06/05/2019	69.36	30.25	15.41	25.35		
12	09/05/2019	74.28	43.55	13.90	29.55		
13	13/05/2019	61.84	32.41	8.52	31.22		
14	15/05/2019	53.49	24.52	16.56	28.67		
15	20/05/2019	70.65	35.49	10.53	34.29		
16	22/05/2019	68.61	27.68	12.43	38.45		
17	27/05/2019	56.32	21.57	7.41	17.57		
18	29/05/2019	62.36	28.38	23.52	33.88		
19	03/06/2019	45.56	21.61	14.56	29.62		
20	05/06/2019	51.55	28.34	10.32	26.31		
21	10/06/2019	67.54	41.31	18.61	30.32		
22	17/06/2019	65.60	29.42	7.54	23.42		
23	19/06/2019	58.32	23.60	15.55	31.54		
24	24/06/2019	64.34	39.52	13.44	24.50		
25	26/06/2019	70.34	25.31	21.54	27.58		
26	01/07/2019	57.30	25.64	19.53	35.79		
27	03/07/2019	60.23	22.11	14.54	16.18		
28	08/07/2019	51.23	23.31	17.47	34.53		
29	10/07/2019	63.40	20.61	7.65	28.57		
30	15/07/2019	58.40	28.63	15.69	31.19		

Continue..

H. T. Shah Dr. ArunBajpai



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	SAMUDRA TOWNSHIP CUSTOMER CARE							
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m3	Particulate Matter (PM _{2.5}) µg/m3	Sulphur Dioxide (SO ₂) µg/m3	Oxides of Nitrogen (NO ₂) µg/m3			
31	17/07/2019	67.32	33.20	10.22	25.64			
32	22/07/2019	56.22	29.48	8.39	19.37			
33	24/07/2019	47.25	26.47	6.54	29.59			
34	29/07/2019	61.63	38.35	20.28	32.40			
35	31/07/2019	72.65	42.63	13.37	20.59			
36	05/08/2019	68.39	39.31	9.61	18.66			
37	07/08/2019	58.67	24.56	16.55	27.62			
38	12/08/2019	49.35	26.76	12.65	32.58			
39	14/08/2019	66.34	30.25	19.57	22.60			
40	19/08/2019	50.26	23.64	10.37	26.38			
41	21/08/2019	60.33	31.21	11.42	20.41			
42	26/08/2019	59.36	21.57	15.36	30.24			
43	28/08/2019	63.94	29.38	8.64	21.55			
44	03/09/2019	63.50	35.45	11.54	16.50			
45	05/09/2019	57.60	26.35	19.61	36.44			
46	09/09/2019	46.38	22.69	8.58	22.39			
47	11/09/2019	53.40	19.57	6.48	17.63			
48	16/09/2019	68.34	33.70	13.61	34.61			
49	18/09/2019	72.35	23.69	10.33	23.62			
50	23/09/2019	56.34	27.68	7.57	18.32			
51	25/09/2019	45.34	18.53	14.58	27.65			
52	30/09/2019	54.42	25.35	12.45	20.33			
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May- 2011)	Gravimetric- CPCB - Method (Vol.I,May- 2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH- NaAsO2)			

H. T. Shah Dr. ArunBajpai

Lab Manager (Q) **Lab Manager**

Cleaner Production / Waste Minimization Facilitator

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RESULT NOISE LEVEL MONITORING

Result of Noise level monitoring [Day Time]

	Name of Location		S	AMUNDRA TO	OWNSHIP ST	Ъ		
SR. NO.	Name of Location	Result [Leq dB(A)]						
	Sampling Date & Time	02/04/2019	15/05/2019	21/06/2019	24/07/2019	09/08/2019	20/09/2019	
1	6:00-7:00	62.3	61.7	58.4	60.8	64.3	57.1	
2	7:00-8:00	58.8	55.4	58.1	63.4	60.2	60.4	
3	8:00-9:00	52.1	59.1	62.4	59.4	65.8	59.1	
4	9:00-10:00	60.0	61.7	60.4	63.1	68.9	62.4	
5	10:00-11:00	59.7	65.8	68.4	60.7	72.1	61.4	
6	11:00-12:00	67.4	65.1	65.7	60.8	70.4	63.1	
7	12:00-13:00	62.9	59.1	67.1	63.4	66.3	65.4	
8	13:00-14:00	61.4	62.7	62.6	65.1	69.9	62.4	
9	14:00-15:00	62.7	67.4	63.4	65.2	67.3	62.8	
10	15:00-16:00	64.8	62.4	64.1	66.8	62.3	62.9	
11	16:00-17:00	62.0	61.8	68.7	62.7	67.4	63.4	
12	17:00-18:00	67.4	60.9	62.4	67.1	64.9	61.7	
13	18:00-19:00	65.8	63.8	68.4	65.7	72.1	64.7	
14	19:00-20:00	61.9	62.8	69.4	64.1	67.3	67.1	
15	20:00-21:00	59.8	65.1	67.2	62.8	65.5	65.1	
16	21:00-22:00	58.1	61.8	62.4	63.8	62.1	61.8	
Day Time Limit*			75 Lea	dB(A)				

Result of Noise level monitoring [Night Time]

SR.	Name of Location	SAMUNDRA TOWNSHIP STP							
NO.	Name of Location		Result [Leq dB(A)]						
	Sampling Date & Time	02/04/2019	15/05/2019	21/06/2019	24/07/2019	09/08/2019	20/09/2019		
1	22:00-23:00	58.4	64.1	60.4	61.4	67.3	65.1		
2	23:00-00:00	60.4	57.2	59.4	60.8	64.2	58.7		
3	00:00-01:00	60.2	51.6	62.4	65.1	60.4	53.7		
4	01:00-02:00	63.4	50.9	61.7	62.9	62.4	52.9		
5	02:00-03:00	61.4	58.8	60.3	59.9	61.3	52.1		
6	03:00-04:00	63.2	52.4	62.8	60.4	60.3	56.4		
7	04:00-05:00	61.7	60.0	61.8	58.1	60.1	55.9		
8	05:00-06:00	60.3	51.6	60.9	62.4	62.6	58.4		
N	light Time Limit*			70 Lec	dB(A)				

H. T. Shah Dr. ArunBajpai

Cleaner Production / Waste Minimization Facilitator

Recognised by MoEF. New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

Result of Noise level monitoring [Day Time]

	Name of Location		SAMUNE	RA TOWNSH	IP CUSTOM	ER CARE		
SR. NO.	Name of Location	Result [Leq dB(A)]						
	Sampling Date & Time	05/04/2019	24/05/2019	26/06/2019	05/07/2019	07/08/2019	13/09/2019	
1	6:00-7:00	52.4	57.3	56.2	57.3	60.4	54.1	
2	7:00-8:00	60.4	55.5	60.1	62.3	62.4	59.4	
3	8:00-9:00	61.9	60.3	62.8	67.3	59.4	55.1	
4	9:00-10:00	58.7	65.3	64.0	53.2	63.4	63.4	
5	10:00-11:00	68.4	61.2	63.1	69.5	68.7	68.4	
6	11:00-12:00	64.5	61.7	67.4	71.3	65.1	62.4	
7	12:00-13:00	65.1	63.8	63.4	65.3	61.4	61.4	
8	13:00-14:00	68.7	65.3	62.8	67.2	68.2	68.4	
9	14:00-15:00	69.0	62.7	65.1	66.6	65.2	62.1	
10	15:00-16:00	62.4	62.3	66.4	69.4	62.4	64.1	
11	16:00-17:00	61.4	65.3	66.1	64.2	61.8	63.7	
12	17:00-18:00	63.8	62.3	63.1	67.8	69.4	68.4	
13	18:00-19:00	59.1	63.7	62.4	60.1	65.3	66.1	
14	19:00-20:00	62.7	65.3	62.8	62.3	63.4	66.4	
15	20:00-21:00	64.8	62.4	64.1	68.3	68.7	69.4	
16	21:00-22:00	61.9	65.4	60.8	65.5	65.1	67.2	
Day Time Limit* 75 Leq dB(A)								

Result of Noise level monitoring [Night Time]

SR.	Name of Location		SAMUNDRA TOWNSHIP CUSTOMER CARE					
NO.	Name of Location		Result [Leq dB(A)]					
	Sampling Date & Time	05/04/2019	24/05/2019	26/06/2019	05/07/2019	07/08/2019	13/09/2019	
1	22:00-23:00	62.4	60.4	62.1	60.3	62.8	60.4	
2	23:00-00:00	56.3	58.8	58.4	60.5	65.7	52.1	
3	00:00-01:00	50.4	59.4	56.1	57.3	55.4	57.1	
4	01:00-02:00	52.5	54.1	57.1	52.6	59.8	53.4	
5	02:00-03:00	48.4	58.5	60.1	54.7	56.8	60.4	
6	03:00-04:00	56.3	60.4	52.1	50.4	55.4	62.4	
7	04:00-05:00	58.3	54.1	57.1	59.4	53.4	61.4	
8	05:00-06:00	61.9	63.7	60.8	62.5	68.4	67.4	
N	light Time Limit*			70 Lec	ι dB(A)			

H. T. Shah

Dr. ArunBajpai

Lab Manager



Recognised by MoEF. New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULTS OF D.G. STACK MONITORING

			14/04/2019			
SR.	Adani Hospital		6000 II 'I			
NO.	TEST PARAMETERS	Unit —	D.G. Set* (500 KVA)	- GPCB Limit	Test Method	
1	Particulate Matter	mg/Nm³	25.54	150	IS:11255 (Part-I):1985	
2	Sulphur Dioxide	ppm	5.55	100	IS:11255 (Part-II):1985	
3	Oxide of Nitrogen	ppm	38.33	50	IS:11255 (Part-VII):2005	
4	Carbon Monoxide	mg/m3	4.33	Not Specified	Digital Gas Analyzer	
5	Hydro Carbon NMHC	ppm	BDL*	Not Specified	Gas Chromatography	

^{*}DG sets are used as standby, so stack monitoring is done on quarterly basis. Results on 15 % O2 Correction when Oxygen is greater than 15 %

H. T. Shah

Lab Manager

Lab Manager (Q)

Recognised by MoEF. New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

MINIMUM DETECTION LIMIT [MDL]

Ambient Air Parameter						
Sr. No.	Test parameter	MDL				
1	Particulate Matter (PM10) (µg/m³)	10				
2	Particulate Matter (PM 2.5) (μg/m³)	10				
3	Sulphur Dioxide (SO ₂) (μg/m³)	5				
4	Oxides of Nitrogen(µg/m³)	5				
5	Hydrogen Sulphide as H2S(μg/m³)	6				

STP Water parameter(mg/L)						
Sr. No.	Test parameter	MDL				
1	рН	2				
2	Total Suspended Solids (mg/L)	2				
3	BOD (3 days @ 270 C) (mg/L)	1				
4	Residual Chlorine (mg/L)	0.2				
5	Fecal Coliform (MPN INDEX/100 mL)	1.8				

	Stack parameter						
Sr.No.	Test parameter	MDL					
1	Particulate Matter (mg/Nm³)	10					
2	Sulphur Dioxide (ppm)	1.52					
3	Oxides of Nitrogen (ppm)	2.65					
4	Carbon Monoxide (mg/Nm³)	0.1					
5	Haydro Carbon NMHC(ppm)	1.0					

H. T. Shah Dr. ArunBajpai

Lab Manager Lab Manager (Q)

Annexure – 3



ANALYSIS REPORT FOR WATER / WASTE WATER SAMPLE

Sample ID:258673 - Analysis Completion:31/05/2019

Gujarat Pollution Control Board, Kutch West Katira Commercial Complex-1, First Floor Near Income Tax office, Manglam Char rasta ,Sanskar nagar,

BHUJ - 370 001

Health-Care Establishment (as defined in BMW Rules)- [Hospitals having total waste-water generation > 100 KLD and having incinerator] / LAB Inward : 5266

TEST REPORT

Test Report No. : 5266 Date: 01/06/2019

1. Name of the Customer : Adani Mundra Sez Infrastructure Pvt. Ltd - 10602

2. Address : SURVEY NO. 141 (PART), SURVEY NO. 141 (PART), VILL MUNDRA, SURVEY NO.

MUNDRA

3. Nature of Sample : REP-Representative/Grab, (Insp Type : APP-On Application)

4. Sample Collected By : R.H.JIVANI,SO

5. Quantity of Sample Received : 5 Ltr 6. Code No. of the Sample : 258673

7. Date & Time of Collection & Inwarding : 09/05/2019, (1025 to 1027) & 10/05/2019

8. Date of Start & Completion of Analysis : 10/05/2019 & 31/05/2019

9. Sampling Point : ## Final Outlet of the ETP ~ From Final out let of STP

10. Flow Details (Remarks) : --

11. Mode of Disposal : On land for gardening

12. Ultimate Receiving Body : No generation of industrial wastewater

13. Temperature on Collection : 29 & pH Range on pH Strip :7 to 8 on ph strip

14. Carboys Nos for : W 1 & Color & Appearance : Colourless

15. Water Consumption & W.W.G (KLPD) : Ind :100.000, Dom :2500.000 & Ind :0.000, Dom :2000.000

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	рН	pH Units	4500 H+ B APHA Standard Methods 22nd edi.2012	1 – 14 pH value As or	7.02
2	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Method	2 – 10000 mg/L	16
3	Fecal Coliform	MPN/100 ml	2.9221 E APHA 22nd Edition IS 1622-1981	<1.8 to >1600 MPN/10	U/A
4	B.O.D (3 Days 27oC)	mg/l	3 - Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	12

<u>Laboratory Remarks</u>: Sample Freeze By:682-aee_682 Dt.: 01/06/2019

Dr. C. N. Agrayet

Dr. S. N. Agravat

Field Observation :

Note:

- 1. $^{\star}\,$ These parameters are NOT covered under the scope of NABL.
- 2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
- 3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
- 4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
- 5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
- Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
- 7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
- 8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
- 9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

Annexure – 4

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Annexure - 5

<u>Details of Greenbelt development at APSEZ, Mundra</u>

	Total Green Zone Detail Till Up to Sept - 2019								
LOCATION	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)				
SV COLONY	69.53	32480.00	7298.00	68327.00	95019.00				
PORT & NON SEZ	81.37	146692.00	19220.00	75061.78	61937.38				
SEZ	116.60	227120.00	20489.00	220583.60	28162.03				
MITAP	2.48	8168.00	33.00	3340.00	4036.00				
WEST PORT	94.33	206587.00	63331.00	24112.00	22854.15				
AGRI PARK	8.94	17244.00	1332.00	5400.00	2121.44				
SOUTH PORT	14.45	27530.00	3470.00	3882.00	3327.26				
Samudra Township	55.93	53672.00	11834.00	20908.89	47520.07				
Productive Farming (Vadala Farm)	23.79	27976.00	0.00	0.00	0.00				
TOTAL (APSEZL)	467.40	747469.00	127007.00	421615.27	264977.33				
		87447	6.00						

Annexure-6

Fire Safety Campaign

13.04.2019 to 19.04.2019

APSEZ Fire Services



Activities carried out from 13.04.2019 to 19.04.2019

LEARN WITH FUN: KAHOOT quiz on home fire safety and LPG emergency awareness at Shantivan Colony

As part of Safety and Fire Carnival, Kahoot quiz game on home fire safety and LPG emergency was played at Shantivan township on 13.04.2019 prior to screening of weekend movie. This online quiz was well received by township residents considering participation of over 170 personnel. All the 15 questions(MCQ) received response from all the participants and the top 5 scorer of the quiz were felicitated on the spot by awarding a token gift. We also received positive feedback from the participants which encouraged us to organize such quiz at regular intervals.









Activities carried out from 13.04.2019 to 19.04.2019

Creating Awareness: Vehicle Fire Safety Campaign at Township

In recent past precious lives are being lost in four wheeler (LMV) fire incidents. There may be numerous reasons of fire incidents in vehicles; but before any fire incident, we get alerts about deviations in vehicles which generally are not taken seriously by owners & drivers which results in such fire incidents. APSEZ fire services conducted doorstep vehicle fire safety inspection and awareness programme in Shantivan Colony & Samundra township on 13.04.2019 & 14.04.2019 respectively. We checked almost 400 LMVS (300 at ST and 100 at SVC) according to exhaustive checklist stressing on fire prone conditions of vehicle. We also pasted/provided a sticker to the LMV owner so that he/she can have a look and recollect our Fire safety awareness points. The event was very well appreciated by the vehicle owners.









Activities carried out from 13.04.2019 to 19.04.2019

Creating Awareness: Vehicle Fire Safety Campaign at Township







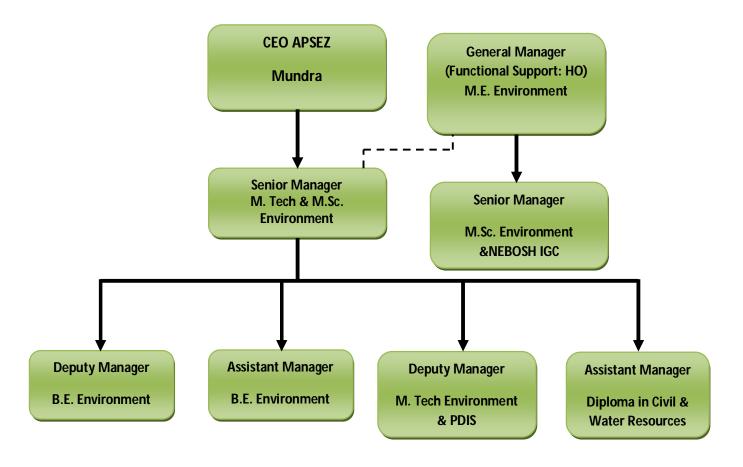




Annexure - 7



Organogram of Environment Management Cell, APSEZ, Mundra



Annexure - 8



Cost of Environmental Protection Measures

Sr.			Budgeted Cost (INR in Lacs)		
No.	Activity	2017 – 18	2018 – 19	2019 - 20 (Till Sep'19)	2019 – 20
1.	Environmental Study / Audit and Consultancy	9.0	6.7	1.35	6.0
2.	Legal & Statutory Expenses	5.07	4.42	0.78	5.7
3.	Environmental Monitoring Services	27.02	20.36	11.23	25
4.	Hazardous / Non Hazardous Waste Management & Disposal	65.62	95.72	44.57	78.5
5.	Environment Days Celebration	2.85	0.28	3.5	10
6.	Treatment and Disposal of Bio- Medical Waste	1.13	1.21	0.68	1.5
7.	Mangrove Plantation, Monitoring & Conservation	60.0	47.0	Nil	Nil
8.	Other Horticulture Expenses	547.0	579.32	546.60	696.46
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	70.02	144.29	43.42	116.44
10.	Expenditure of Environment Dept. (Apart from above head)	102.15	109.28	75.13	102.5
	Total	889.86	1008.58	727.26	1042.10