

APSEZL/EnvCell/2017-18/007

Date: 23.05.2017

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. Adani Mundra SEZ Infrastructure Pvt. Ltd."

Ref : Environment clearance granted to Adani 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 / CRZ Clearance for the period of October - 2016 to March - 2017 is enclosed here for your records. The stated information is also provided in form of a CD (soft copy).

Thank you,

Yours Faithfully,

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



Ennarasu Karunesan
Chief Executive Officer
Mundra & Tuna Port

Enclosure: As above

Copy to:

- 1) 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
- 3) Member Secretary, SEIAA, Gujarat, Paryavaran Bhavan, GPCB, Sector 10 A, Gandhi Nagar - 382 010
- 4) Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham, 370201

31-5-17
कायलिय / OFFICE
परिवेश एवं वन मंत्रालय (केन्द्रीय)
Ministry of Environment & Forests (C)
परिवेश एवं वन मंत्रालय (पश्चिम क्षेत्र)
Regional Office (Western Region)
मंत्रालय (अ.प्र.) - 482016

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Environmental Clearance
Compliance Report
of



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

of

Adani Mundra SEZ Infrastructure Pvt. Limited
for
Period:
October-2016 to March-2017

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
Status of the conditions stipulated in Environment Clearance		

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Compliance Report of Environment Clearance

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
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.	Specific Conditions	Compliance Status as on 31-03-2017
A. Specific Conditions		
A.1	Construction Phase:	
1.	Minimum Aerial distance of 100 m shall be kept between processing & non – processing areas of SEZ, as proposed.	Complied.
2.	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 the resource consumption like total water usage or wastes generated.	complied Buildings having only Ground +2 floors are constructed. Maximum height of building is 10.05 m + Mumty 2.85 m. For rest of dwelling units to be constructed as part of the project, building height will be restricted as per the regulatory requirements.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
2(a)	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.	<p>Water tank having capacity of 2,50,000 Litre serves the purpose of fire water tank.</p> <p>For fire protection we are provide individual fire Extinguishers for each building block photographs attached as Annexure-1</p> <p>As per GoG GDCR dated April 5 ,2007 , Part IV – C , Chapter IV Section 4 Structural Design, all above component will conform Part VI Structural design section 1 Loads, Section 2 Foundation, Section 3 Wood, Section 4 Masonry, Section 5 Concrete, Section 6 Steel, of National Building Code of India taking into consideration the India Standards and Guidelines for Hazard safety as given below :</p> <ol style="list-style-type: none"> 1. IS:1893-1984 "Criteria for Earthquake Resistant Design of Structures (Fourth Revision) 2. IS: 13920-1993 "Ductile Detailing of Reinforced Concrete Structures subjected to Seismic Forces – Code of Practice" 3. IS : 4326 – 1993 "Earthquake Resistant Design and Construction of Buildings – Code of Practice (Second Revision)" 4. IS:13828 – 1993 "Improving Earthquake Resistance of Low Strength Masonry Buildings – Guidelines" 5. IS:13827 – 1993 "Improving Earthquake Resistance of Earthen Buildings – Guidelines" 6. IS:13935-1993 "Repair and Seismic Strengthening of Buildings – Guidelines" 7. "Improving Earthquake Resistance of Buildings – Guideline", by Expert Group, Government of India, Ministry of Urban Affairs & Employment, published by Building Materials and Technology Promotion Council, 1998.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
2(b)	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.	<p>complied</p> <p>All existing buildings are having maximum height of 10.05 m + 2.85 m mumty.</p> <p>There are no high rise building constructed till date. The condition will be complied with in future when high rise buildings are constructed.</p>
3.	The project proponent shall not obstruct the flow of river Bhukhi passing through the social infrastructure area and shall not do any encroachment on the said river, as per their undertaking dated 21/07/2009. All necessary precautions and measures shall be taken in order to ensure that natural drainage of river Bhukhi passing through the project site is not altered / affected.	<p>Complied.</p> <p>Additional bridge / walkthrough over the Bhukhi river passing through the site is constructed for free flow of bhukhi river through social infrastructure area .</p>
4.	Additional bridge / walkthrough over the Bhukhi river passing through the site shall be provided between the two bridges planned to be provided so as to reduce distance to be travelled during the emergency situations.	<p>Complied</p> <p>Construction work for the project is partially completed.</p> <p>Additional bridge / walkthrough over the Bhukhi river passing through the site is constructed .</p>
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.	<p>Complied .</p> <p>Adequate fencing is provided along the banks of river Bhukhi passing through the site for preventing fall of animals / humans.</p>

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
6.	All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.	Complied Construction work for the project is partially completed. Sanitary and hygienic measures were provided and will be provided to construction labours upon resuming construction activities and the said facilities will be maintained throughout the construction phase. Construction phase- 1 completed and project is in operation.
7.	The construction site shall be provided with adequately barricades of at least 3 m height on its periphery with adequate signage	Construction work for the project is partially completed. Barricades were provided and will be provided all along the construction site upon resuming construction activities and the said facilities will be maintained throughout the construction phase.
8.	Adequate first aid facilities shall be provided in the project both during construction and operation of the project.	Construction work for the project is partially completed. First aid facility was provided and will be provided at the construction site upon resuming construction activities and the said facilities will be maintained throughout the construction phase. Multispecialty Hospital is part of the project activity which will be utilized for emergencies, if any during construction as well as operation phase. 3 Nos. of First-aid box is put in township area.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
9.	Adequate drinking water, sanitation and other amenities shall be provided for construction workers at the site. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.	<p>Construction work for the project is partially completed.</p> <p>Facilities related to drinking water supply; sanitation and disposal of waste water and solid wastes were provided and will be provided at the construction site upon resuming construction activities and the said facilities will be maintained throughout the construction phase.</p>
10.	Provision should be made for the supply of fuel (Kerosene or cooking gas), utensils such as pressure cookers etc. to the laborers during construction phase.	<p>Construction work for the project is partially completed.</p> <p>Adequate house hold facilities were provided and will be provided to construction labours upon resuming construction activities and the said facilities will be maintained throughout the construction phase.</p> <p>In addition to the same, a canteen facility is provided which is accessible to all.</p>
11.	The project proponent shall ensure that the construction labours are provided with adequate amenities for lighting, drinking water, sanitation etc. to ensure that do not ruin the existing environmental condition.	<p>Construction work for the project is partially completed.</p> <p>Facilities related to drinking water supply; sanitation and lighting were provided and will be provided to construction labours upon resuming construction activities and the said facilities will be maintained throughout the construction phase.</p>
12.	Adequate personal protective equipments shall be provided to the construction workers to ensure their safety and the project proponent shall ensure its usage by the labours.	<p>Construction work for the project is partially completed.</p> <p>Personal protective equipment were provided and will be provided to construction labours upon resuming construction activities and the said facilities will be maintained throughout the construction phase.</p>

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
13.	All topsoil excavated during construction activities should be stored separately for use in horticultural / landscape development within the project site.	Complied. Top soil excavated during construction work stored properly. Top soil is replenished in a phased manner on completion of the construction activity and is utilized for landscape ,horticulture purpose and roadside plantation in the APSEZ area.
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 aspects.	Complied. There generation of construction debris, are used for construction of roads as well as for filling up of low lying areas of the project site as well as in the vicinity.
15.	Use of diesel generator sets during construction phase should be enclosed type and confirm to EPA rules for air and noise emission standards.	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 movable DG set.
16.	Ready-made mix concrete should be used so far as possible	Complied Ready mix concrete is only used.
17.	Water demand during construction should be reduced by use of curing agents, plasticizers and other best practices.	Complied By using plasticizers, average 10 litres water is being saved per cubic meter production of concrete. Approximately 300 KLD water is saved till date by using plasticizers.
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-pick hours.	Construction work for the project is partially completed. Vehicles having a valid PUC will only be allowed to be used upon resuming construction activities and the said enforcement will be maintained throughout the construction phase.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
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.	Construction work for the project is partially completed. Regular noise and air quality sampling and analysis are carried out and will be carried out on regular basis. Summary of sampling and analysis reports is attached as Annexure – 2.
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.	Complied The fixtures for shower, toilets, flushing and drinking purposes are installed having pneumatic pressurized system to reduce water consumption. Twin flushing is installed in all toilets.
21.	Fly ash should be used as building material in the construction as per provision of Fly Ash Notification under EPA.	Complied. Construction work for the project is partially completed. Paver blocks containing fly-ash were used and will be used upon resuming construction activities
22.	Structural design aspects in accordance to the seismic zone shall be strictly adhered to.	Complied. All structural designs are in accordance with the requirements of seismic zone V.
23.	No ground water shall be used and the water required during construction phase shall be sourced from Gujarat Water Infrastructure Ltd.	Complied. We are using Narmada water sourced from Gujarat Water Infrastructure Limited through Adani Ports and Special Economic Zone Limited for operation phase. Ground Water is not used. Construction work for the project is partially completed. Water is sourced from MUPL for construction activities upon resuming construction activities.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
24.	The construction materials and debris shall be properly stored and handled to avoid negative impacts such as air pollution and public nuisances by blocking the roads and public passages. Appropriate barricading shall be done and signboards shall be put at such site.	Complied. Construction work for the project is partially completed. Construction materials and debris were stored and will be stored in such a way that the public access is not blocked and there is no impact on air environment upon resuming construction activities and the said facilities will be maintained throughout the construction phase.
25.	Ambient Air Quality Monitoring / Noise monitoring shall be carried out during the construction. The location of ambient air quality monitoring stations and its frequency shall be decided in consultation with GPCB.	Complied. Construction work for the project is partially completed. Regular noise and air quality sampling and analysis are carried out and will be carried out on regular basis. Summary of sampling and analysis reports is attached as Annexure - 2 .
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.	Construction work for the project is partially completed. Statutory requirements under different acts and rules will be provided to construction labours upon resuming the construction activities.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
27.	Environment Management Cell 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.	Completed. APSEZL as group has a well structured Environment Cell, staffed with qualified manpower for implementation of the Environmental Monitoring and Management Plan during construction as well as operation phase. The Environment Management Cell is headed by Sr. Executive who directly reports to the top management. The organogram of Environment Cell is attached as Annexure-3
A.2	Operation Phase:	
28.	Fresh water requirement during the operation phase shall not exceed 9 MLD and it shall be sourced from Gujarat Water Infrastructure Ltd. Metering of the water shall be done and its records shall be maintained. No ground water shall be extracted.	Complied. No ground water is extracted. Fresh water requirement for Samudra township and Adani Hospital is ranging from 1 MLD which is sourced through Gujarat Water Infrastructure Ltd. (GWIL) pipeline from Narmada water supply and desal water from APSEZL desalination plant . No ground water is being Extracted Record maintained for quantity of water usage during the period Oct'16 to March'17 is attached as Annexure - 4.
29.	The total sewage generation from the proposed social infrastructure project shall not exceed 7.2 MLD.	Complied. Generation of Sewage ranging from 813 KLD at Samudra township and Adani Hospital 480 KLD the and is treated in the Samudra township horticulture purpose Details of sewage generated during the period Oct'16 to March'17, is attached as Annexure - 4.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017																									
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 modules shall be operated regularly and effectively to achieve the GPCB norms.	<p>Complied.</p> <p>STP having capacity of 2.5 MLD is constructed and operated in township area. Treated sewage is utilized on land after achieving discharge norms of GPCB.</p> <p>One STP having capacity of 30 KLD is constructed and operated in Hospital. Treated sewage is utilized for horticulture purposes.</p> <p>Third party analysis of the treated water is being carried out twice in a in a month by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Oct-16 to Mar-17 is mentioned below.</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^s</th></tr><tr><td>Residual Chlorine</td><td>ppm</td><td>0.8</td><td>0.5</td><td>> 0.5</td></tr><tr><td>pH</td><td>--</td><td>7.92</td><td>6.81</td><td>6.5 – 8.5</td></tr><tr><td>TSS</td><td>mg/L</td><td>28.0</td><td>14.0</td><td>30</td></tr><tr><td>BOD (3 Days @ 27 °C)</td><td>mg/L</td><td>19.0</td><td>8.0</td><td>20</td></tr></table> <p>^s as per CC&A granted by GPCB</p> <p>Please refer Annexure – 4 for detailed analysis reports. Approx. INR 27.95 Lakh is spent for all environmental monitoring activities during the F.Y. 2016-17 period.</p>	Parameter	Unit	Max	Min	Perm. Limit ^s	Residual Chlorine	ppm	0.8	0.5	> 0.5	pH	--	7.92	6.81	6.5 – 8.5	TSS	mg/L	28.0	14.0	30	BOD (3 Days @ 27 °C)	mg/L	19.0	8.0	20
Parameter	Unit	Max	Min	Perm. Limit ^s																							
Residual Chlorine	ppm	0.8	0.5	> 0.5																							
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TSS	mg/L	28.0	14.0	30																							
BOD (3 Days @ 27 °C)	mg/L	19.0	8.0	20																							
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 shall be carried out.	<p>Complied.</p> <p>At present one STP of 2.5 MLD is installed on one side of Bhukhi river and one STP of 30 KLD is installed on other side of Bhukhi river for hospital. Hence no any cross drainage civil work carried out at AMSIPL Area.</p>																									

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32.	Out of total 7.2 MLD of treated 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.	Complied. During Oct'16 to March'17 approx. 183 Million Litre treated water is used for gardening / plantation purpose within township area / APSEZ area.
33.	In no case, the wastewater / treated sewage shall be 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 submitted shall be implemented. Before recharging the rain water, pre-treatment must be done to remove suspended matter.	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 underground water is saline in nature and is likely to be contaminated in high tide. So project is currently on hold. Specific study to estimate potential of Rain Water Harvesting has been completed. Implementation & Execution of the rain water harvesting structure is under progress.

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Sr. No.	Specific Conditions	Compliance Status as on 31-03-2017
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.	<p>Complied.</p> <p>Dry waste collection drive including plastic free drive and waste segregation drive is being organised on regularly basis. Municipal solid waste collection from residential township area is being done on daily bases. Collected dry waste is being sent for recycling. Approx. 11 MT of waste collected from townships during F.Y. 2016-17 for recovery and recycling purpose. Photographs showing the same are attached as Annexure – 5.</p> <p>AMSIPL is installed Organic Waste Converter within premises for converting food waste in to reach manure and generated manure is being utilized in own horticulture / green belt area. AMSIPL has also procured Vermi Composting beds for preparing manure from food waste as well as STP sludge. Photographs showing the same are attached as Annexure – 6.</p>
37.	The Bio-medical Waste (BMW) shall be disposed as per guidelines of BMW rules 1998 as may be amended from time to time.	<p>Complied.</p> <p>Multispecialty hospital has taken the necessary approvals from GPCB for the disposal of Bio Medical Waste. During Oct'16 to March'17 period total 2627 Kg of bio medical waste disposed to Common Bio Medical Waste Treatment facility.</p>
38.	Hazardous wastes, if any generated during the operation phase shall be handled as per the Hazardous Waste (Management, Handling & Transboundary Movement) Rules 2008, as may be amended from time to time.	<p>Complied.</p> <p>During October'16 to March'17 there is no hazardous waste generation.</p> <p>If any hazardous waste generation in future, it will be dispose through authorised agency only.</p>

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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. No construction was carryout during compliance period Oct-16-March-2017. Adequate open ground floor parking area has been provided within township premises and it is also earmarked.
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 available round the clock to guide/help for 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 parking, 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. Third gate has been provided for emergency purposes only.
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.	Not applicable at present Common utilities like drinking water facility, toilets etc is provided for commercial building.

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
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.	Specific Conditions	Compliance Status as on 31-03-2017
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. The project proponent shall plant 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.	<p>Complied.</p> <p>APSEZL has developed its own "Dept. of Horticulture" and is taking better measures/steps to improving environment. So, far APSEZL have developed total more than 54.74 ha area as green belt with plantation of 26048 saplings in APSEZL premises.</p> <p>Details of the green belt development activity done by APSEZL Mundra along with photographs are attached as Annexure – 7.</p>
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.	<p>Noted and complied.</p> <p>The area earmarked as green area is used only for green belt and no altered for any other purpose. Separate budget for the horticulture department is earmarked every year.</p> <p>The spent budget for Horticulture Cell for the period F.Y. 2016-17 is 555 lakh.</p> <p>Details of the green belt development activity done by APSEZL Mundra along with photographs are attached as Annexure –7.</p>
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.	<p>Complied.</p> <p>Solar system of 1.5 MW has been installed within township.</p> <p>Information has been already submitted to MoEF&CC along with Half Yearly Compliance Report Apr – 2016 to Sep – 2016. There is no further change.</p>

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
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.	Specific Conditions	Compliance Status as on 31-03-2017												
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.	<p>Complied.</p> <p>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.</p> <p>Noise (once in a month) monitoring is being carried out by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Oct-16 to Mar-17 is mentioned below.</p> <p>Total Sampling Locations: 2 Nos.</p> <table><tr><th>Noise</th><th>Unit</th><th>Avg. Value</th><th>Perm. Limit</th></tr><tr><td>Day Time</td><td>dB(A)</td><td>63.8</td><td>75</td></tr><tr><td>Night Time</td><td>dB(A)</td><td>58.9</td><td>70</td></tr></table> <p>Please refer Annexure – 2 for detailed analysis reports. Approx. INR 27.95 Lakh is spent for all environmental monitoring activities during the F.Y. 2016-17 period.</p>	Noise	Unit	Avg. Value	Perm. Limit	Day Time	dB(A)	63.8	75	Night Time	dB(A)	58.9	70
Noise	Unit	Avg. Value	Perm. Limit											
Day Time	dB(A)	63.8	75											
Night Time	dB(A)	58.9	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.	<p>Point noted and being complied.</p> <p>Energy audit is conducted. The report is under review. All the recommendations of improvement will be implemented as applicable during the next compliance period.</p>												
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.	<p>Complied.</p> <p>Energy audit is conducted. The report is under review. The final report will be submitted along with the next compliance submission.</p>												
50.	The roof should meet regulatory requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirements.	<p>Complied.</p> <p>All construction activities are carried out as per Energy Conservation Building Code.</p>												

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
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.	Specific Conditions	Compliance Status as on 31-03-2017
51.	Use of glass shall be minimal to reduce the electricity consumption and load on air-conditioning.	Complied. Minimal glass are use for reduce the electricity consumption and load on air-conditioning.
52.	Risk estimation shall be carried out for the project and disaster management plan shall be prepared and its recommendations shall be implemented in the time bound manner.	Complied. Risk Estimation is carried out for AMSIPL. Detail submitted to the MoEF & CC along with half yearly compliance report Apr – 2015 to Sep – 2015.
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. More than 500KL water is reserved as fire water at Samudra Township location.

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
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.	Specific Conditions	Compliance Status as on 31-03-2017														
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.	<div>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 movable DG set. Emergency contact is display each block as below</div> <table><tr><td>Security control</td><td>8980048877</td></tr><tr><td>Township Security control</td><td>8980015046</td></tr><tr><td>Medical Adani hospital reception</td><td>2838-619555</td></tr><tr><td>Medical Emergency Number -</td><td>2838-619667</td></tr><tr><td>Medical Emergency mobile Number</td><td>7574848413</td></tr><tr><td>Fire control room-</td><td>2838-255801</td></tr><tr><td>Fire control room mob.</td><td>9879114996</td></tr></table>	Security control	8980048877	Township Security control	8980015046	Medical Adani hospital reception	2838-619555	Medical Emergency Number -	2838-619667	Medical Emergency mobile Number	7574848413	Fire control room-	2838-255801	Fire control room mob.	9879114996
Security control	8980048877															
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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 towards exits and assembly points during the unforeseen emergency and eventuality conditions.	<div>Complied. Auto glow signage is provided at adequate locations to provide guidance to the people towards exits. Also the township & Adani Hospital is under security guard surveillance to combat with unforeseen emergency and eventuality conditions.</div>														
56.	Training to the staff for the First Aid and Fire Fighting Alarm with regular mock drill shall be conducted regularly and shall be made in integral part of the disaster management plan of the project.	<div>Complied. 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 on the same is attached as Annexure – 1.</div>														
57.	Ozone Depleting Substance (Regulation and Control) rules shall be followed while designing the air conditioning system of the project.	<div>Complied. Ozone Depleting Substance inventory is produced and maintained during the compliance period of Oct'16 to Mar'17. Domestic Air conditions used at the project site are using only CFC free refrigerant gas.</div>														

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
Status of the conditions stipulated in Environment Clearance		


58.	Environment Management Cell shall be formed by the project 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.	<p>Complied.</p> <p>APSEZL as group has a well structured Environment Cell, staffed with qualified manpower for implementation of the Environmental Monitoring and Management Plan. Environment Management Cell organogram is enclosed as Annexure – 3.</p> <p>Ambient Air Quality (twice in a week) and Noise (once in a month) monitoring are being carried out by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Oct-16 to Mar-17 is mentioned below.</p> <p>Total Sampling Locations: 2 Nos.</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^{\$}</th></tr><tr><td>PM₁₀</td><td>µg/m³</td><td>94.30</td><td>42.58</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>µg/m³</td><td>54.55</td><td>16.63</td><td>60</td></tr><tr><td>SO₂</td><td>µg/m³</td><td>23.35</td><td>5.23</td><td>80</td></tr><tr><td>NO₂</td><td>µg/m³</td><td>42.75</td><td>15.26</td><td>80</td></tr><tr><th>Noise</th><th>Unit</th><th colspan="2">Avg. Value</th><th>Perm. Limit</th></tr><tr><td>Day Time</td><td>dB(A)</td><td colspan="2">63.8</td><td>75</td></tr><tr><td>Night Time</td><td>dB(A)</td><td colspan="2">58.9</td><td>70</td></tr></table> <p>^{\$} as per NAAQ standards, 2009</p> <p>Please refer Annexure – 2 for detailed analysis reports. Approx. INR 27.95 Lakh is spent for all environmental monitoring activities during the F.Y. 2016-17 period</p>	Parameter	Unit	Max	Min	Perm. Limit ^{\$}	PM ₁₀	µg/m ³	94.30	42.58	100	PM _{2.5}	µg/m ³	54.55	16.63	60	SO ₂	µg/m ³	23.35	5.23	80	NO ₂	µg/m ³	42.75	15.26	80	Noise	Unit	Avg. Value		Perm. Limit	Day Time	dB(A)	63.8		75	Night Time	dB(A)	58.9		70
Parameter	Unit	Max	Min	Perm. Limit ^{\$}																																						
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Night Time	dB(A)	58.9		70																																						
B. General 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.	<p>Complied.</p> <p>Outside people are allowed access to use the social infrastructures like hospital and school. During Oct'16 to March'17 5,063 (OPD as well IPD) patients have been treated in the Hospital.</p> <p>Approx Rs. 63 Lakh worth of free medical services given to nearby villagers during Oct'16 to March'17.</p>																																								

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
Status of the conditions stipulated in Environment Clearance		

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.
61.	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.	<p>Complied.</p> <p>Separate budget for the Environment cell is earmarked every year. All environmental and horticulture activities are considered at group level and budget allocation is also done accordingly.</p> <p>Budget for environmental management measures (including horticulture) for the FY 2016-17 is to the tune of INR 932 lakh. Out of which, Approx. INR 910 lakh are spent during F.Y. 2016-17 period. Detailed breakup of the expenditures is attached as Annexure -8.</p>

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
Status of the conditions stipulated in Environment Clearance		

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 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.	<p>Already complied. Not applicable at present.</p> <p>Information has been already submitted to MoEF & CC along with half yearly compliance report April – 2015 to Sep – 2015 and there is no further change.</p>
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 1 st June and 1 st December of each calendar year.	<p>Complied.</p> <p>Last compliance report submitted to the Ministry of Environment, Forests & Climate Change as well as SEIAA dated 24.11.2016.</p>
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 date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Point noted.
67.	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.	Point noted.

	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
Status of the conditions stipulated in Environment Clearance		

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.	Point noted.
69.	This environmental clearance is valid for five years from the date of issue.	Point noted.
Additional condition - (amendment to Environment Clearance Order No. SEIAA/GUJ/EC/8(b)/44/2010 dated 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.	Complied. Comparative carbon footprint study report submitted to the MoEF & CC along with half yearly compliance report Oct – 2014 to March – 2015.

Annexure – 1

BUILDING EVACUATION DRILL OBSERVATION REPORT

Objective - The objective of Building evacuation on mock drill is to ensure that evacuation procedure of high rise buildings has been practiced and all occupants are well familiar about evacuation route and procedure.

EMERGENCY DRILL CHECK LIST

Name of the Building:- Adani Hospital

Date of the Drill:04/02/2017

Time notified for Evacuation Drill:15:36:01 Hrs

Location to which occupants relocated: Assembly Area

Method and Time of activation of Fire Alarm:NA

Time in which all occupants vacated site:60 second

Floor response personnel	Check the appropriate box		
	Yes	No	Not Observed
• Fire Warden Wearing distinctive marking (Glow Jacket)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Staircase / Elevators / Search Monitored	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Assistants to Disabled / Non Ambulatory	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Interior doors closed but not locked After searched	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Response of warden / fire response team	Satisfactory	<input checked="" type="checkbox"/> Unsatisfactory	<input type="checkbox"/>

Occupant / affected personnel response	Check the appropriate box		
	Yes	No	Not observed
• Their Initial response on sounding of alarm	Satisfactory	<input checked="" type="checkbox"/> Unsatisfactory	<input type="checkbox"/>
• Occupants / affected persons aware of Staircase location	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• Did evacuation processed in smooth and orderly manner.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Did visitors to building participated	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Overall response of Occupants / affected persons	Satisfactory	<input checked="" type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

Emergency staff / system/equipment

• Fire alarm clearly heard in all areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• PA System announcements clearly Heard in all area	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Did air conditioning systems shut down	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Did pressurization of staircase occurred	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Were exits and corridors clear	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Condition and accessibility of portable Fire extinguishers	Satisfactory	<input checked="" type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
Overall Performance	Satisfactory	<input checked="" type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

Recommendations:

Deficiencies noted and actions to be taken:

- 1.Public address system not available.
- 2.Code red not implemented in Hospital.

Signature of Leader (Observations Team) --Vipin Yadav_____

Activities carried out from 04.02.2017 to 10.02.2017

Mock Fire and evacuation Drill at Adani Hospitals Snaps



Evacuation of Patient started



Ms.Lija asking APSEZ Fire team to search the hospital building for causality



Fire personal with SCBA executing search operation



Debriefing at Assembly Point

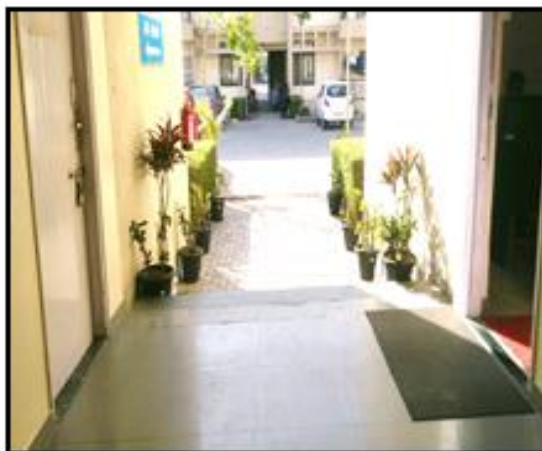


Mock drill response Team

Activities carried out from 11.11.2016 to 17.11.2016

Enhancing Fire Protection at Residential Colonies: Installation of Fire Extinguishers at Samudra Township

Fire risk at Samudra Township was moderate as many LMVs are parked very close to each other looking to the geographical distance between gort and samudra township. It will take considerable time to reach the township. In case of emergency resulting in conversion of minor incident into major fire. Although there were few extinguisher kept at Security gate but it was not ample. Thus we proposed to install fire extinguisher at each block and senior management was kind enough to approve the same. Now Fire Extinguisher are received and installation of the same is under progress. We are planning to conduct training to each resident during Home Fire safety awareness drive Phase 02. We are very much thankful APSEZ senior management for approving capex and Assec team for supporting us in fixing of Fire Extinguisher.



adani

Annexure – 2

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

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:
OCTOBER 2016 TO MARCH 2017****PREPARED BY:****POLLUCON LABORATORIES PVT.LTD.
544, BELGIUM TOWERS, RING ROAD, SURAT – 395 003
PHONE/FAX – (+91 261) 2455 751, 2601 106, 2601 224.
E-mail: pollucon@gmail.com Web: www.polluconlab.com****T 0820 - 821****ISO 9001:2008****ISO 14001:2004****OHSAS 18001:2007**



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

RESULTS OF STP WATER OUTLET

SR. NO	TEST PARAMETERS	Unit	AMSIPL STP OUTLET						TEST METHOD
			Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	March-17	
1	pH	--	7.02	7.38	6.81	7.51	7.17	7.26	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	18	22	14	26	24	22	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	12	16	8	19	11	8	IS 3025 (P44)1993Re.03Edition2.1
4	Residual Chlorine	mg/L	0.6	0.6	0.6	0.5	0.7	0.8	APHA(22 nd Edi)4500 Cl

SR. NO	TEST PARAMETERS	Unit	ADANI HOSPITAL STP OUTLET						TEST METHOD
			Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	March-17	
1	pH	--	6.98	6.97	7.02	7.16	7.12	7.16	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	20	22	16	16	24	26	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	19	16	19	14	19	16	IS 3025 (P44)1993Re.03Edition2.1
4	Residual Chlorine	mg/L	0.5	0.8	0.6	0.6	0.8	0.7	APHA(22 nd Edi)4500 Cl

*Below Detection limit

H. T. Shah
Lab Manager**Dr. Arun Bajpai**
Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
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RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP					
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO₂) $\mu\text{g}/\text{m}^3$
1	01/10/2016	71.61	33.68	7.83	18.60
2	05/10/2016	62.71	30.77	12.49	30.65
3	08/10/2016	76.67	42.41	15.72	27.59
4	12/10/2016	47.70	18.71	10.44	20.69
5	15/10/2016	54.65	23.53	17.46	34.28
6	19/10/2016	75.58	38.66	14.79	21.60
7	22/10/2016	64.29	34.51	8.73	24.38
8	26/10/2016	70.21	40.33	19.45	32.40
9	28/10/2016	81.62	35.75	16.39	29.26
10	02/11/2016	69.60	27.44	14.84	30.97
11	05/11/2016	80.27	44.49	7.89	15.26
12	09/11/2016	60.33	34.51	19.65	21.22
13	12/11/2016	89.91	52.38	16.56	29.33
14	16/11/2016	76.80	47.40	22.72	33.75
15	19/11/2016	52.40	20.79	18.34	26.12
16	23/11/2016	71.43	40.74	10.45	23.58
17	26/11/2016	58.31	31.60	13.41	18.31
18	30/11/2016	65.69	35.75	17.18	20.39
19	03/12/2016	44.77	19.54	13.28	30.39
20	07/12/2016	55.39	26.61	18.68	23.25
21	10/12/2016	69.42	30.77	11.24	17.20
22	14/12/2016	58.31	22.45	16.46	35.63
23	17/12/2016	74.48	42.41	19.52	33.15
24	21/12/2016	62.28	28.69	9.61	27.62
25	24/12/2016	84.18	47.40	23.35	38.21
26	28/12/2016	67.40	31.60	19.22	24.40
27	31/12/2016	52.28	18.71	7.78	20.26
28	04/01/2017	68.32	37.42	22.23	34.10
29	07/01/2017	50.32	22.45	10.52	26.15
30	11/01/2017	76.31	32.43	18.53	37.66

Continue..**H. T. Shah**
Lab Manager**Dr. Arun Bajpai**
Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

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SAMUDRA TOWNSHIP					
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$
31	14/01/2017	59.29	26.61	12.27	31.61
32	18/01/2017	66.30	38.50	15.88	38.50
33	21/01/2017	78.38	34.51	13.23	27.20
34	25/01/2017	52.58	16.63	8.73	19.53
35	28/01/2017	65.33	29.52	11.36	24.69
36	01/02/2017	80.27	43.65	20.24	32.88
37	04/02/2017	69.29	37.42	16.41	29.55
38	08/02/2017	55.63	20.37	13.46	30.52
39	11/02/2017	72.59	33.68	10.42	25.20
40	15/02/2017	58.37	25.36	8.71	21.27
41	18/02/2017	63.80	30.35	14.95	34.22
42	22/02/2017	52.82	23.70	19.60	38.61
43	25/02/2017	62.71	27.44	9.47	15.40
44	01/03/2017	69.29	38.66	17.58	36.79
45	04/03/2017	50.38	23.70	14.88	25.44
46	08/03/2017	42.58	17.46	11.71	33.17
47	11/03/2017	68.38	26.61	8.73	30.37
48	15/03/2017	77.89	44.49	20.82	42.75
49	18/03/2017	53.80	20.37	13.41	39.25
50	22/03/2017	62.28	28.69	16.61	27.33
51	25/03/2017	84.30	41.58	10.15	19.34
52	29/03/2017	58.31	25.36	18.86	23.36
	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-NaAsO ₂)

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SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$
1	01/10/2016	77.51	38.72	9.58	20.36
2	05/10/2016	54.28	25.40	10.52	28.22
3	08/10/2016	83.23	48.72	18.75	22.25
4	12/10/2016	76.19	40.39	8.74	17.72
5	15/10/2016	62.53	29.50	14.21	29.17
6	19/10/2016	87.20	46.63	12.23	15.32
7	22/10/2016	58.61	24.57	11.72	21.20
8	26/10/2016	78.29	35.39	17.53	38.71
9	28/10/2016	67.40	28.73	13.98	26.35
10	02/11/2016	58.37	23.73	12.59	27.39
11	05/11/2016	86.72	48.72	10.53	18.57
12	09/11/2016	67.52	30.40	16.58	30.29
13	12/11/2016	73.48	43.72	14.96	26.23
14	16/11/2016	87.80	54.55	19.67	39.27
15	19/11/2016	69.21	29.56	9.44	20.19
16	23/11/2016	94.30	52.46	13.46	19.64
17	26/11/2016	82.63	45.38	7.87	15.55
18	30/11/2016	75.53	39.56	11.33	23.44
19	03/12/2016	59.88	28.73	10.53	23.11
20	07/12/2016	64.21	32.48	13.42	27.74
21	10/12/2016	75.28	38.72	8.68	20.34
22	14/12/2016	50.31	18.74	19.23	31.43
23	17/12/2016	62.83	35.39	16.55	28.50
24	21/12/2016	84.49	39.56	14.95	22.42
25	24/12/2016	75.59	43.72	12.51	28.66
26	28/12/2016	60.60	26.65	6.99	34.21
27	31/12/2016	71.19	21.65	15.74	30.58
28	04/01/2017	55.61	30.40	19.80	28.71
29	07/01/2017	78.17	35.39	17.48	21.24
30	11/01/2017	51.27	25.40	22.88	32.68

Continue..

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Lab ManagerDr. Arun Bajpai
Lab Manager (Q)

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SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM10) µg/m3	Particulate Matter (PM 2.5) µg/m3	Sulphur Dioxide (SO2) µg/m3	Oxides of Nitrogen (NO2) µg/m3
31	14/01/2017	67.58	29.56	13.20	24.37
32	18/01/2017	59.28	26.46	10.43	34.54
33	21/01/2017	71.31	31.64	8.80	19.14
34	25/01/2017	64.39	23.73	16.58	31.74
35	28/01/2017	57.59	21.65	6.18	27.31
36	01/02/2017	69.27	38.72	10.53	20.69
37	04/02/2017	58.31	30.40	13.25	23.40
38	08/02/2017	46.52	16.66	15.90	27.39
39	11/02/2017	78.17	40.39	8.63	19.85
40	15/02/2017	86.30	34.56	12.21	30.41
41	18/02/2017	70.77	39.56	9.72	21.59
42	22/02/2017	57.47	28.73	11.41	24.24
43	25/02/2017	75.53	42.47	7.16	17.41
44	01/03/2017	57.59	32.48	14.81	31.24
45	04/03/2017	64.27	29.56	11.40	28.71
46	08/03/2017	51.57	26.65	8.62	25.57
47	11/03/2017	75.83	37.47	12.58	29.77
48	15/03/2017	67.22	40.39	10.45	33.54
49	18/03/2017	46.82	17.49	16.72	36.59
50	22/03/2017	55.61	24.57	5.23	30.61
51	25/03/2017	76.61	36.64	7.84	22.99
52	29/03/2017	68.18	21.65	10.33	32.60
	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)

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RESULT NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
		19/10/2016	09/11/2016	14/12/2016	18/01/2017	03/02/2017	22/03/2017
1	6:00-7:00	56.4	58.5	53.4	60.4	62.4	54.5
2	7:00-8:00	59.2	61.5	57.1	58.1	60.2	58.4
3	8:00-9:00	63.4	63.4	62.4	61.8	65.3	64.5
4	9:00-10:00	62.4	62.9	68.1	65.4	67.2	64.2
5	10:00-11:00	68.7	66.3	65.4	64.2	67.2	67.6
6	11:00-12:00	66.1	66.8	70.4	64.8	70.2	64.2
7	12:00-13:00	62.9	65.1	68.4	63.5	73.8	68.5
8	13:00-14:00	69.7	63.4	63.4	69.8	69.3	65.4
9	14:00-15:00	67.4	64.9	66.4	65.2	65.2	63.2
10	15:00-16:00	62.4	64.8	66.8	62.8	63.9	65.3
11	16:00-17:00	68.1	67.3	63.4	65.4	67.3	67.5
12	17:00-18:00	70.9	62.7	62.5	66.9	68.3	62.4
13	18:00-19:00	65.1	62.8	68.4	63.4	62.1	65.3
14	19:00-20:00	63.4	67.8	67.4	62.8	63.2	62.3
15	20:00-21:00	65.4	68.2	67.1	65.4	65.2	61.2
16	21:00-22:00	68.1	66.1	62.5	62.7	66.9	61.8
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
		19/10/2016	09/11/2016	14/12/2016	18/01/2017	03/02/2017	22/03/2017
1	22:00-23:00	58.1	59.5	59.4	63.1	58.4	67.3
2	23:00-00:00	56.1	57.2	62.1	65.1	60.4	64.2
3	00:00-01:00	62.1	58.8	61.4	68.4	60.2	60.4
4	01:00-02:00	59.4	62.2	60.4	60.7	63.4	62.4
5	02:00-03:00	63.1	63.4	60.8	60.8	61.4	61.3
6	03:00-04:00	62.4	59.3	61.4	63.4	63.2	60.3
7	04:00-05:00	61.4	57.4	63.4	58.4	61.7	60.1
8	05:00-06:00	61.8	64.8	59.4	60.4	60.3	62.6
Night Time Limit*		70 Leq dB(A)					

Result of Noise level monitoring [Day Time]H. T. Shah
Lab ManagerDr. Arun Bajpai
Lab Manager (Q)

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SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
		05/10/2016	23/11/2016	07/12/2016	11/01/2017	08/02/2017	08/03/2017
1	6:00-7:00	52.4	56.5	69.1	56.1	54.7	57.3
2	7:00-8:00	57.1	62.4	55.4	60.4	58.3	55.5
3	8:00-9:00	63.4	61.9	53.4	62.4	63.2	60.3
4	9:00-10:00	61.4	65.8	60.4	60.4	68.3	65.3
5	10:00-11:00	62.8	66.4	61.5	65.7	65.2	61.2
6	11:00-12:00	65.4	61.8	63.4	62.4	65.2	61.7
7	12:00-13:00	62.4	61.5	59.5	60.4	69.4	63.8
8	13:00-14:00	64.8	68.9	62.4	68.1	67.4	65.3
9	14:00-15:00	68.4	60.5	65.4	63.5	63.1	62.7
10	15:00-16:00	66.1	65.9	65.1	63.8	61.8	62.3
11	16:00-17:00	62.4	62.4	63.4	65.4	60.4	65.3
12	17:00-18:00	69.8	56.8	67.1	61.8	65.3	62.3
13	18:00-19:00	66.4	67.9	62.4	64.7	65.8	63.7
14	19:00-20:00	63.4	62.4	62.8	62.4	68.4	65.3
15	20:00-21:00	62.4	66.6	61.8	62.8	63.2	62.4
16	21:00-22:00	63.7	67.2	63.1	65.4	63.8	65.4
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
		05/10/2016	23/11/2016	07/12/2016	11/01/2017	08/02/2017	08/03/2017
1	22:00-23:00	62.4	58.4	59.4	62.4	62.4	60.3
2	23:00-00:00	54.1	54.3	53.4	56.1	56.3	60.5
3	00:00-01:00	50.1	56.3	58.4	52.7	50.4	57.3
4	01:00-02:00	59.8	62.9	55.1	50.4	52.5	52.6
5	02:00-03:00	57.1	61.4	50.4	53.8	48.4	54.7
6	03:00-04:00	56.4	53.9	47.1	58.1	56.3	50.4
7	04:00-05:00	62.4	60.5	49.5	58.7	58.3	59.4
8	05:00-06:00	61.8	60	50.7	61.5	61.9	62.5
Night Time Limit*		70 Leq dB(A)					

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MINIMUM DETECTION LIMIT [MDL]

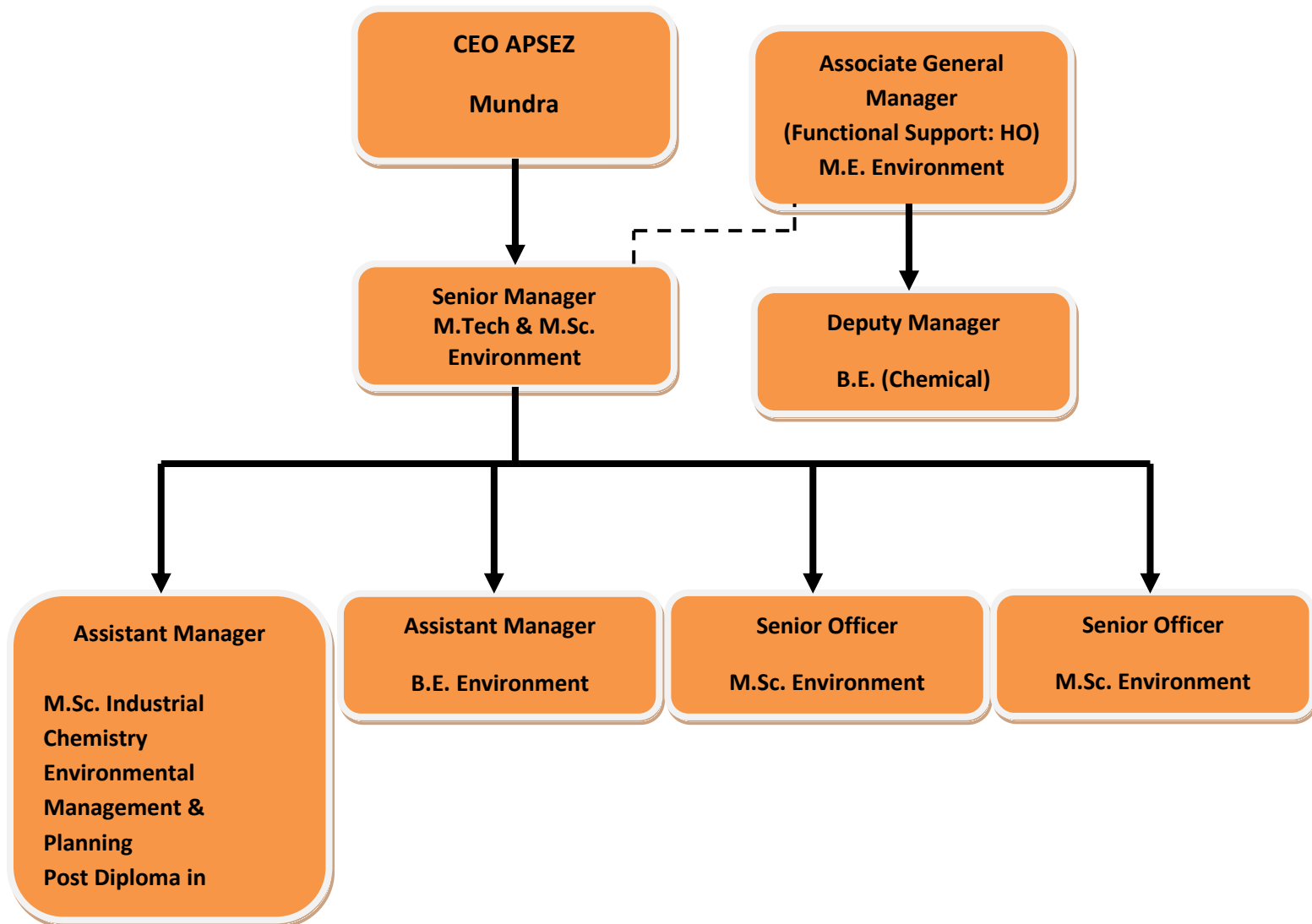
Ambient Air Parameter		
Sr. No.	Test parameter	MDL
1	Particulate Matter (PM10)	10
2	Particulate Matter (PM 2.5)	10
3	Sulphur Dioxide (SO ₂) (µg/m ³)	5
4	Nitrogen Dioxide (NO ₂) (µg/m ³)	5

Stack parameter		
Sr. No.	Test parameter	MDL
1	Particulate Matter (mg/Nm ³)	10
2	Sulphur Dioxide(ppm)	1.52
3	Oxides of Nitrogen (ppm)	2.65

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Lab Manager (Q)

Annexure – 3

Organogram of Environment Management Cell, APSEZ, Mundra



Annexure – 4

<u>ANNEXURE – 4</u> Water Consumption and Wastewater Generation Details for AMSIPL (October'16 to March'17)			
Month	Water Consumption, KL	STP Water Inlet, KL	STP Water Outlet, KL
Oct'16	31,494	26,288	25,652
Nov'16	30,973	22,395	22,119
Dec'16	31,212	24,058	23,349
Jan'17	30,644	24,313	23,395
Feb'17	29,795	26,342	25,339
Mar'17	29,449	25,041	26,492
Total	1,83,567	1,48,437	1,46,346

Note:

1. Treated sewage water is completely used for gardening purpose
2. As for the good faith and life of MBR we use to flush the one MBR with treated water from the other i.e. approx. 4 times a month. That water is again treated through MBR, because of that the outlet reading is higher than the inlet.

Annexure – 5

Annexure – 5

Photographs showing Waste Collection Drive in Townships



Annexure – 6

Annexure – 6

**Photographs showing Infrastructure facility for OWC Installation
in Samudra Township**

Capacity: 500 Kg/Day



	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
Status of the conditions stipulated in Environment Clearance		

ANNEXURE – 7

Vermi Composting Beds



Details of Greenbelt Development at APSEZ, Mundra

LOCATION	Total Green Zone Detail Till Up to March - 2017				
	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)
SV COLONY	61.09	28287.00	6965.00	50020.00	80069.00
PORT & NON SEZ	71.96	124946.00	18613.00	62986.78	58455.18
SEZ	94.01	158335.00	15924.00	250449.60	27462.03
MITAP	2.48	8168.00	33.00	1670.00	4036.00
WEST PORT	81.34	181827.00	50221.00	24112.00	22854.15
AGRO- PARK	7.52	17244.00	1332.00	5400.00	2121.44
SOUTH PORT	14.08	25150.00	3430.00	3882.00	4826.97
Samundra Township	48.62	24602.00	12505.00	19978.07	35071.67
Productive Farming (Vadala Farm)	15.69	19336.00	0.00	0.00	0.00
TOTAL (APSEZL)	396.79	587895.00	109023.00	418498.45	234896.44
		696918.00			

❖ Within Adani Ports & SEZ







❖ Within Residential Township (Samudra and Shantivan)



❖ Within CETP Premises



	Adani Mundra SEZ Infrastructure Pvt. Ltd., Mundra.	From : October,16 To : March,17
Status of the conditions stipulated in Environment Clearance		

ANNEXURE – 8

Cost of Environmental Protection Measures

Sr. No.	Activity	Cost incurred (INR in Lakh)			Budgeted Cost (INR in Lakh)
		2014 – 15	2015 – 16	2016 – 17	2016 – 17
1.	Environmental Study / Audit and Consultancy	29.87	45.45	36.78	49.98
2.	Legal & Statutory Expenses	11.26	3.30	4.76	7.88
3.	Environmental Monitoring Services	23.76	26.80	27.95	32.82
4.	Hazardous Waste Management & Disposal	9.56	34.56	12.52	12.75
5.	Environment Day Celebration	7.01	7.18	6.71	12.00
6.	Treatment and Disposal of Bio-Medical Waste	1.00	1.22	1.27	1.44
7.	Mangrove Plantation	127.97	53.28	46.18	30.00
8.	Mangrove Monitoring & Conservation	36.75	20.36	26.20	40.00
9.	Horticulture Expenses	380.27	434.72	555.00	516.00
10.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	30.78	18.18	61.50	98.85
11.	Expenditure of Environment Dept. (Apart from above head)	184.91	135.90	131.83	130.32
Total		843.14	837.73	910.70	932.04