

Ref No. APMT/ENV/MoEF&CC/EC&CRZ/22-23/14

Dated;25-Nov-2022

To,
The Principal Chief Conservator of Forests (C),
Ministry of Env., Forest and Climate Change
Regional Office (Western Zone),
Kendriya Paryavaran Bhawan,
E-5 Arera Colony, Link Road-3,
Ravishankar Nagar, Bhopal-462016

Sub: Submission of Six-Monthly Compliance Status of Environmental & CRZ Clearance Report for APM Terminal- Pipavav, Rajula- Gujarat.

Ref:

1. Environmental Clearance Letter No.: 10-91/2009-IA.III, dated; 5 June 2012.
2. EC Amendment Vide No. 11-91/2009-IA.III, dated; 18 Feb 2014.
3. EC Amendment Vide No. 11-91/2009-IA.III, dated; 30 March 2015.
4. EC Amendment Vide No. 11-91/2009-IA.III, dated; 02 Sep 2019.

Respected Sir,

With reference to the above subject, please find enclosed Six- Monthly (Half Yearly) Environmental Clearance (EC) and CRZ Clearance Compliance Status report for the period of October-2020 to March-2021 along with Environmental Parameters Report and Corporate Social Responsibility status report.

This is for your kind information & record please.

kindly acknowledge the receipt of these reports.

Continued....

Thanking You,

Yours faithfully

For APM Terminal Pipavav



Sanjay Singh
Head- HSSE Improvement
APM Terminals, Pipavav
Post- Uchhaiya, Taluka-Rajula
District- Amreli, Pipavav Port-365560

APM Terminals Pipavav
Gujarat Pipavav Port Ltd
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CC:

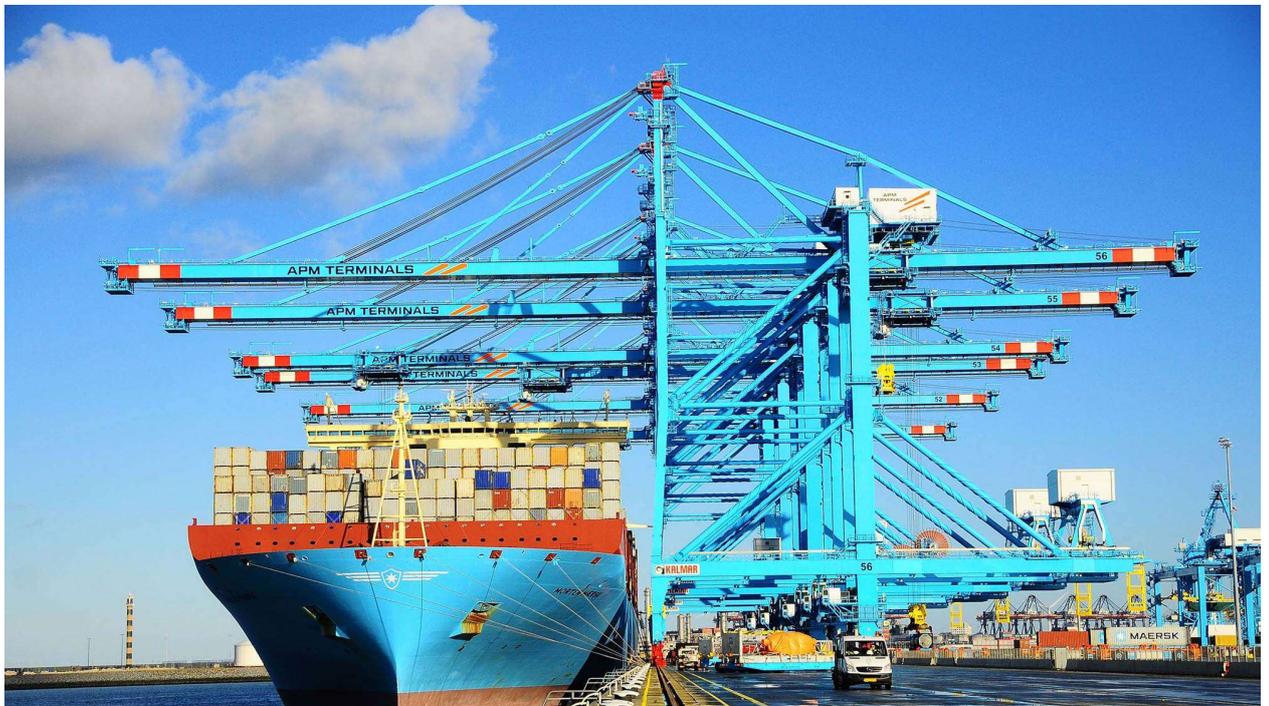
1. **The Chairman, Zonal Office**-Central Pollution Control Board, Parivesh Bhavan, Opp. VMC ward Office No. 10, Subhanpura, Vadodara-390023
2. **The Member Secretary**, Gujarat Pollution Control Board, Paryavaran Bhavan, Opp. Bij Nigam, CHH Road, Sector 10A, Gandhinagar, Gujarat 382010.
3. **The Regional Officer**, Gujarat Pollution Control Board, Swastik Complex, 1st Floor, Plot No. 1616/1617, Near Vir Mokhadaji Circle, Ghogha Road, Bhavnagar-364001(Gujarat).
4. **Director (IA-III)**, Monitoring Cell, Ministry of Environment, Forest & Climate Change, CGO Complex, Lodhi Road, New Delhi-110003.

Encl: EC & CRZ Compliance Report (April-2022 to Sep-2022)

11/24/2022

ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

APRIL-2022 TO SEPTEMBER-2022



**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

**SIX MONTHLY COMPLIANCE REPORT
OF
ENVIRONMENT & CRZ CLEARANCE**

**GUJARAT PIPAVAV PORT LIMITED
(APM TERMINAL-PIPAVAV)**

**At
RAJULA, DISTRICT- AMRELI
GUJARAT**

Submitted to:

**Ministry of Environment Forest & Climate Change, (WR Office) Bhopal
Ministry of Environment Forest & Climate Change, New Delhi
Central Pollution Control Board, Zonal Office (Vadodara)
Gujarat Pollution Control Board-Bhavnagar/Gandhinagar (HO)**

Submitted by:

**APM Terminals Pipavav
Gujarat Pipavav Port Ltd.
Post Office- Rampara No.2, Village- Rajula
District- Amreli, Gujarat-365560-India**

PERIOD: APRIL 2022- SEPTEMBER 2022

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

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**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

1.0: Introduction:

1. Gujarat Port Pipavav is operated by APM Terminals, part of the A.P. Moller-Maersk Group, one of the largest container terminal operators in the world.
2. APM Terminals operate a network of 76 ports globally.
3. Port Pipavav is in Saurashtra region in the state of Gujarat, 152 nautical miles northwest of Mumbai (less than ten hours steaming time) on the west coast of India. Approximately 140 kilometers southwest of Bhavnagar, situated at a latitude of 20°54'N and a longitude of 71°30'E. Port Pipavav is an all-weather port in the state of Gujarat and provides immediate access to a rich hinterland and key markets in northwest India.
4. All the operation related permits, including Environmental Clearance, Forest Clearance, CRZ Clearance from MOEF&CC and consents from Gujarat Pollution Control Board, are in place.
5. Annual Environmental quality monitoring in & around the port site is being done by M/s. Kadam Environmental Consultant, a NABL & MoEF&CC approved Laboratory.
6. Upliftment of the socio -economic status of the nearby community and society are carried out on a continuous basis through various programmes run under the company's Corporate Social Responsibility (CSR) scheme.
7. A vast green belt as per the CPCB guidelines is being developed to curb the emission and to provide an aesthetic look.
8. Point wise compliance status of Environmental Clearance for GPPL is furnished herewith.

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

**Compliance Status on Environment & CRZ Clearance
(Gujarat Pipavav Port Limited)**

1. MOEF Ref. Letter No.: 10-91/2009-IA.III, dated 5 June 2012
2. MOEF Ref. Letter No.: 11-91/2009-IA.III, dated 18 Feb 2014
3. MOEF Ref. Letter No.: 11-91/2009-IA.III, dated 30 March 2015.
4. MOEF&CC Ref Letter No.: 11-91/2009-IA.III, dated 2 Sep 2019.

Sr. No.	Stipulation	Compliance Status as on 30-SEP -2022
35.	Specific Condition:	
1.	The landing jetty for the mooring of ferry crafts which facilitates transport of Shiyalbet Islanders to/from the Shiyalbet Island shall be upgraded with proper connectivity as committed.	<p>Complied.</p> <p>Existing facility upgraded with concrete road facility, up to the jetty. External Paved Road of GPPL is also being used by the Villagers.</p> <p>Roads and landing jetty for Shiyalbet was damaged due to cyclone Tauktae, and the repairing works along with bund protection and strengthening are completed.</p>
2.	The coal shall be stored only in designated stock yard with dust control measures viz. wind screen of height at least 2 ft above the of coal stock, made of fabric/HDPE, water sprinkler assignment, green belt of at least three layers of suitable trees and scrubs. Use of creepers should also be explored in consultation with the Forest Department.	<p>Being Complied.</p> <p>Major Steps Taken-</p> <ul style="list-style-type: none"> ➤ Coal has been stored in dedicated, designed COAL YARD. ➤ WATER CURTAIN has been installed on windward side of yard, which blanket the area with very fine water spray. ➤ The yard is encircled by three meters high chain link fence with synthetic mesh all around the Coal yard and with three levels tree plantations. Creepers has also planted to make green canopy on the chain link fencing.

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

		<ul style="list-style-type: none"> ➤ We are in process to procure Mist Canon type fogging system to mitigate the chance of fugitive emissions. ➤ Green Belt development in coal yard completed which was damaged by cyclone Taukate. ➤ Coal water Re-circulation system is in place.
3.	<p>The project Proponent shall provide additional plantation in the gaps to develop proper filter screen.</p> <p>(a) The entry and exit points for dumper trucks shall be suitably designed with loop in and loop out arrangement of traffic and a fabric mesh for acting as a filter barrier for coal dust.</p> <p>(b) Bus frequency for Shiyalbet Island residents should be increased during peak hours so as to reduce the waiting time to 10 minutes.</p>	<p>Being Complied.</p> <p>Gap Filling and New Plantation/ sampling is being carried out on regular basis. Local villagers are engaged through local agency for green belt development works.</p> <p>Coal yard perimeter wall and wind curtain have been damaged due to cyclone and now it is repaired and maintained.</p> <p>Loop in & Loop Out Traffic Management is in practice and heavy penalty provision in port for the violation of traffic rules.</p> <p>Bus frequency increased for Shiyalbet Island residents.</p>
4	<p>The vehicle used for coal transportation to M/s. UltraTech Cement Ltd. at Jaffarabad shall be properly covered to prevent dust pollution.</p>	<p>Being Complied.</p> <p>All the raw material transportation out -side of port premises is being done only through covered trucks/ dumpers. Dedicated Safe Truck tarpaulin covering area is in place for covering the truck with tarpaulin.</p>
5.	<p>16.5 Mcum dredged material out of total 18 Mcum is proposed to be utilized for reclamation purpose in port development. The rest shall be disposed of shore at the site suggested by NIOT.</p>	<p>Noted for Compliance.</p>

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

6.	PP shall adopt closed conveyer coal transport to the proposed power plants in the vicinity.	<p>Noted for future Compliance.</p> <p>At present no such facility has been set up in the immediate vicinity of the port.</p>
7.	Consent for establishment shall be obtained from Gujarat pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	<p>Complied.</p> <p>CTE order, vide its no. PC/CCA-AMR-13(7)/GPCB ID 14808/115982, dated 22/06/2012. Which was valid up to 04/01/2017.</p> <p>The CTE was renewed and amended up to 30 April 2022, vide its order no. PC/CCA-AMR-13(7)/GPCB ID 14808/411575, dated 5/5/2017.</p> <p>The CTE was again renewed and amended up to 04 June 2023, vide its order no. CTE Amendment No. 225015, ID 14808, granted on 21-Oct-2022.</p>
8.	The dredge materials contain sand-46%, silt-21% and clay 33 %. However, the proponent shall carry out chemical characteristics before disposal/using it for reclamation to ensure its suitability and prevent any likely impact.	<p>Complied.</p> <p>The study of characterization has been done and submitted to MoEF&CC, DoEF, CPCB and GPCB, vide our letter no. APMT/ENV-54/5269, dated 30/01/13.</p> <p>Noted for Compliance.</p>
9.	The storm water management shall be put in place before the commencement of the activities. Storm management report with technical details shall be submitted to RO of MoEF&CC within six months.	<p>Being Complied.</p> <p>The Concept report prepared and submitted to RO of MoEF&CC, DoEF, CPCB & GPCB, vide letter no. APMT/ENV-44/3966, dated 23/11/12 and APMT/ENV-54/5269, dated 30/01/13.</p> <p>A pond is constructed with HDPE lining to collect the surface water/rainwater and further its treatment if required, through Reverse Osmosis Plant. Treated water is being utilize for green bel development.</p>

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
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<p>10.</p>	<p>The proponent shall provide minimum 100 meters buffer from the mangroves. The existing mangroves shall be documented with latest satellite map and shall be submitted to RO, MoEF&CC for compliance verification purpose.</p>	<p>Complied.</p> <p>100 meters of buffer from mangroves is maintained.</p> <p>Documentation of existing Mangroves along with provision for maintaining 100 meters buffer are being maintained and report submitted to MoEF&CC, DoEF, and GPCB, vide letter no. APMT/ENV-54/5269, dated 30/01/13.</p> <p>As per EC 2015 and MoEF&CC officials visit- GPPL port has maintained 85 acre of mangroves belt in the port area against the requirement of 60 acre as per EC 2007.</p> <p>In addition to this,500 Ha and 100 Ha Mangroves plantation has been carried out at Surat & Bharuch area with the help of Gujarat Ecological Commission.</p> <p>Some patches of Mangroves within port area were damaged during cyclone.</p> <p>GPPL has awarded a contract to Gujarat Institute of desert Ecology- Kutch, for the finding the causes of Mangroves damage and way forward for its restoration</p> <p>Protection Measures such as restricted entry regular surveillance and watch on inflow and outflow of water have resulted in overall growth of mangroves within this area.</p>
<p>11.</p>	<p>Requisite clearance including clearance from Petroleum and explosives Safety organization (PESO) formerly Explosive Department, Nagpur shall be obtained for establishment tank farms. All relevant provisions of MSIHC Rules 1989 shall be complied.</p>	<p>Complied.</p> <p>PESO License (for Fuel Station) vide no. P/WC/GJ/15/384(P 143282) is valid up to 31-12-2024.</p> <p>PESO permissions vide no. G-22 (47) 162, dated; 10-April-2012 for Commissioning of upgraded Sea water Based Firefighting System for handling LPG, POL and</p>

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		<p>Chemicals on bulk liquid jetty at Port Pipavav.</p> <p>PESO permissions vide no. G-22 (47) 162, dated; 29-Nov-2018 for Commissioning of Butadiene handling at bulk jetty no. 5 of Port Pipavav.</p> <p>PESO permissions vide no. G-22 (47) 162, dated; 05-April-2021 for import of Petroleum at GPPL.</p>
12.	<p>Green belt of not less than 33 % shall be developed and maintained all along the boundary.</p>	<p>Being Complied.</p> <p>Total 2,55,742 plantation has been done over an area of 258 acre, with survival rate of more than 80 %.</p> <p>Plantation is being done on phased manner.</p> <p>Approx. 20% plantation damage due to cyclone and now it is in regeneration process.</p>
13.	<p>The dry cargo shall be unloaded into hopper and from hopper it will be taken through closed conveyor system to the storage yards.</p>	<p>Complied.</p> <p>Current closed conveyer is under structural integrity review and during the cyclone conveyor system has also suffered damaged and cannot be made operational till such time. Coal unloading is done through hopper with mechanical open and close system which delivers the cargo to dumpers. No coal dumping carried out on jetty complete operation is through hoppers.</p>
14.	<p>Mitigation plan for handling the dusty cargo/around storage yards as per presentation may be stipulated.</p>	<p>Being Complied.</p> <p>An Environmental Steering Committee is formed at site to monitor and implement the best environmental practices as per</p>

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
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		<p>mitigation plan/ guidelines issued by MoEF&CC, CPCB & GPCB.</p> <p>Continuous monitoring & assessment of plan/ guidelines is being carried out by the team on regular basis.</p>
15.	There shall be no ground water drawl within CRZ area.	<p>Complied.</p> <p>The Port has piped water (Narmada Water) connection by M/s. Gujarat Water Infrastructure Ltd.- Barwala.</p> <p>Withdrawal of ground water within CRZ area of Port is strictly prohibited and there is no ground water withdrawal in port area for any purpose.</p>
16.	Sewage shall be treated, and the treatment facility shall be provided in accordance with the Coastal Regulation Zone notification, 2011.The disposal of treated water shall confirm the regulation of State pollution Control Board.	<p>Complied.</p> <p>A modern technology, MBBR based Sewage Treatment Plant having capacity of 370 KLD for Residential Colony is installed and operational since June,2015. Another,80 KLD capacity mechanized tank STP is installed and operational near 370 KLD STP for Residential Colony.</p> <p>For Port, 25 KLD capacity STP is installed and operational near jetty.</p> <p>Treated water from both the STP is being re-used for green belt development and as sprinkling purpose to reduce fugitive emissions.</p> <p>Sample of STP inlet and Outlet is being analyzed by NABL & MoEF&CC approved laboratory and being submitted to the authorities.</p>
17.	Solid waste management shall be as per Municipal Solid waste (management and handling) Rules, 2000.	<p>Being Complied.</p> <p>3Types of bins (Bio-degradable, Non-biodegradable & hazardous wastes) placed</p>

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
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		<p>in various locations across the port and in residential township. Solid waste is being segregated from these bins by local Vendors and being disposed of by them.</p> <p>Plastic waste, wooden waste, E- waste, MS Scrap waste and HW are being collected from the site and stored in Hazardous Waste Storage area from there it is being sold out to authorized Recycler/Re-processors.</p> <p>Organic Waste Converter Machine (OWC) is installed at the site for the conversion of Organic Waste into the form of green Manure. <i>An Eco-friendly Initiative.</i></p> <p>Woodchipper/Mulch Machine has installed at the site to use the green belt waste like branches and stem coming out during maintenance of trees like trimming and all, and it is converted in to woodchipper. Woodchippers will use in green belt development to retain moisture in the soil, prevents soil erosion and will maintain the soil nutrients.</p>
18.	The project shall be executed in such a manner that there shall not be any disturbance to the fishing activity.	Noted and Agreed.
19.	It shall be ensured that there is no displacement of people houses or fishing activity as a result of the project.	<p>Complied.</p> <p>No Displacement of people due to existing and/or proposed activities.</p>
20.	No construction works other than those permitted in Coastal Regulation Zone notification shall be carried out in Coastal Regulation Zone area.	Noted for Compliance.
21.	The project proponent shall set up separate environment management cell for effective	Complied.

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
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	implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Separate Environment Management Cell is setup with qualified Environment background professional and the cell is headed by General Manager- HSSE, who directly report to Managing Director- APM Pipavav Port.
22.	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Being Complied. Separate Budget allotted for Environmental protection in every financial year under Budget Head HSSE [cost center (internal) 242 and GL Account 522650 to 105610].
36. General Standards:		
1.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Noted for Compliance. All appropriate measures is being taken well in advance during Project Construction activities like spray of water to avoid fugitive dust emission, mobile urinals/ toilets for the workers, safe drinking water provision etc.
2.	Fully support shall be extended to the officers of this Ministry/Regional Office by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Noted & Adhered.
3.	A six -monthly monitoring report shall need to be submitted by the project proponent to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.	Being Complied. Half Yearly Compliance report is being submitted to Regional Office of MoEF&CC at Bhopal/ New Delhi, Gujarat Pollution Control Board-Bhavnagar/ Gandhinagar, along with Environmental Parameters Monitoring reports & CSR details as per timeline stipulated by MoEF&CC. Last EC compliance report submitted on 19-May-2022 vide No.

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
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		APMT/ENV/MoEF&CC/EC&CRZ/22-23/03 to regional office of MoEF&CC, CPCB & GPCB and the same was uploaded on Parivesh Portal.
4.	Ministry of Environment & Forest or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and the same shall be complied with.	Noted & Agreed.
5.	The ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted & Agreed.
6.	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forest.	Noted for Compliance.
7.	The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Complied. Existing project is self-financed. For Expansion Project if lenders (Bank’s) are involved authorities will be intimated in advance.
8.	A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.	Complied.

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9.	Gujarat pollution control Board shall display a copy of the clearance letter at the Regional Office, district industries Centre and Collector’s office/Tehsildar’s Office for 30 days.	Complied.
10.	These stipulations would be enforced among others under the provisions of Water (prevention and control of pollution) Act 1974, the Air (prevention and control of pollution) Act 1981, the Environment (protection)Act, 1986, the Public Liability (Insurance)Act, 1991 and EIA notification, 1994, including the amendments and rules made thereafter.	Noted.
11.	All other statutory clearance such as the approvals for storage of diesel from Chief Controller of Explosives, Fire department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (protection)Act, 1972 etc. shall be obtained, as applicable by the project proponents from the respective competent authorities.	Complied. PESO License (for Fuel Station) vide no. P/WC/GJ/15/384(P 143282) is valid up to 31-12-2024.
12.	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the Gujarat Pollution Control board and may also be seen on the website of the ministry of Environment and Forest at http://www.envfor.nic.in .The advertisement should be made within 10 days from the date of receipt of clearance letter and a copy of the same should be forwarded to the Regional Office of this ministry at Bhopal.	Complied. Advertisement for EC approval published in two local News Papers, <u>AVADH TIMES-AMRELI</u> (in Gujarati) and <u>FINANACIAL EXPRESS</u> (in English, all edition) on 11 April-2015.
13.	Environment clearance is subject to final order of the Hon’ble Supreme Court of India in the matter of Goa Foundation Vs. Union of	Noted.

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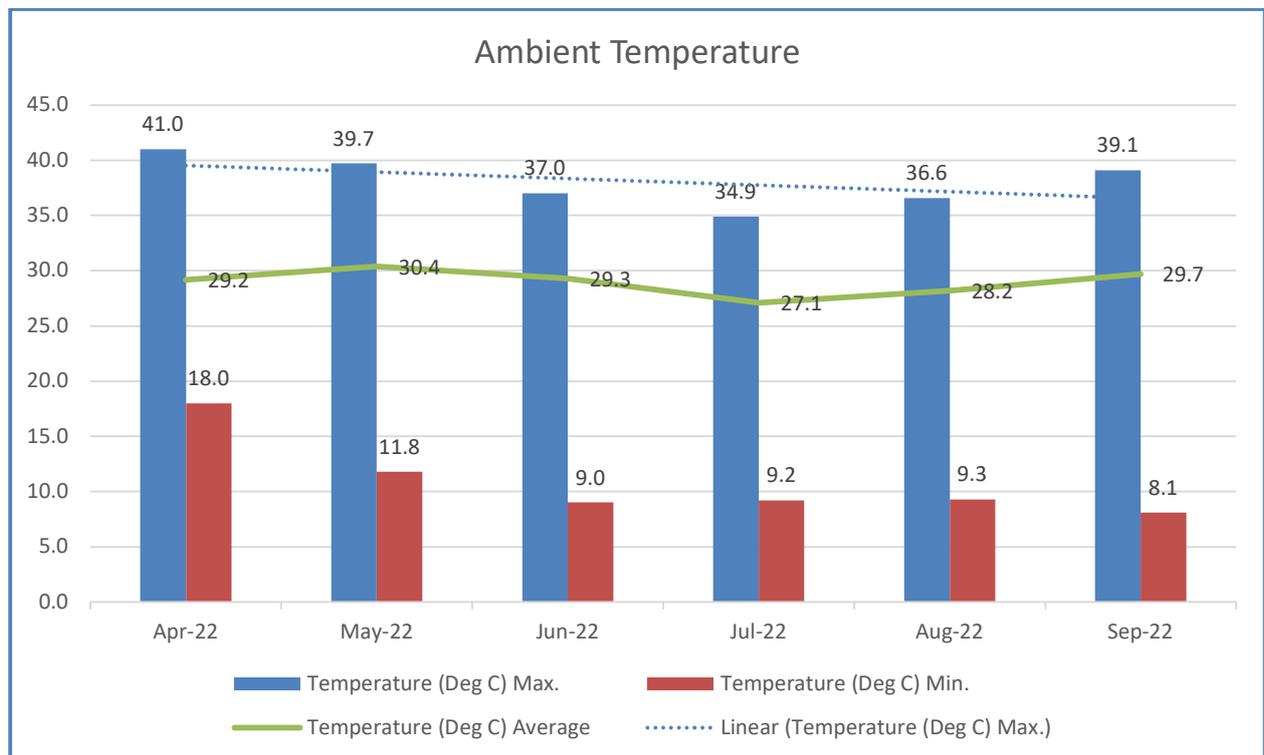
	<p>India in Writ Petition (Civil)No.460 of 2004 as may be applicable to this project.</p>	<p>EC & CRZ Clearance was valid up to 04-June-2022. Now, it is extended up to 03-June-2023 as per MoEF&CC notification 18-January 2021 (covid relaxation).</p>
<p>14.</p>	<p>A copy of the clearance letter shall be sent by the proponent to be concerned Panchayat, Zilla Parishad/municipal Corporation, urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.</p>	<p>Complied. https://www.apmterminals.com/en/pipavav/CSR/environment</p>
<p>15.</p>	<p>The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB</p>	<p>Being Complied. https://www.apmterminals.com/en/pipavav/CSR/environment Half yearly Compliance report is also being submitted in hard & soft copy to the concerned authorities. Last EC compliance report submitted on 19-May-2022 vide No. APMT/ENV/MoEF&CC/EC&CRZ/22-23/03 to regional office of MoEF&CC, CPCB & GPCB and the same was uploaded on Parivesh Portal.</p>
<p>16.</p>	<p>The environmental statement for each financial year ending 31st March in FORM-V as is mandated to be submitted by the project proponent to the concerned State pollution Control Board as prescribed under the Environment (Protection)Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e mail.</p>	<p>Being Complied. Last Environment Statement Report is submitted in Form-V to the concerned Authorities vide no. APMT/ENV/GPCB/ES/21-22/14 dated; 08-Sep-2022. https://www.apmterminals.com/en/pipavav/CSR/environment</p>

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
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METEOROLOGICAL DATA OF APM PORT PIPAVAV

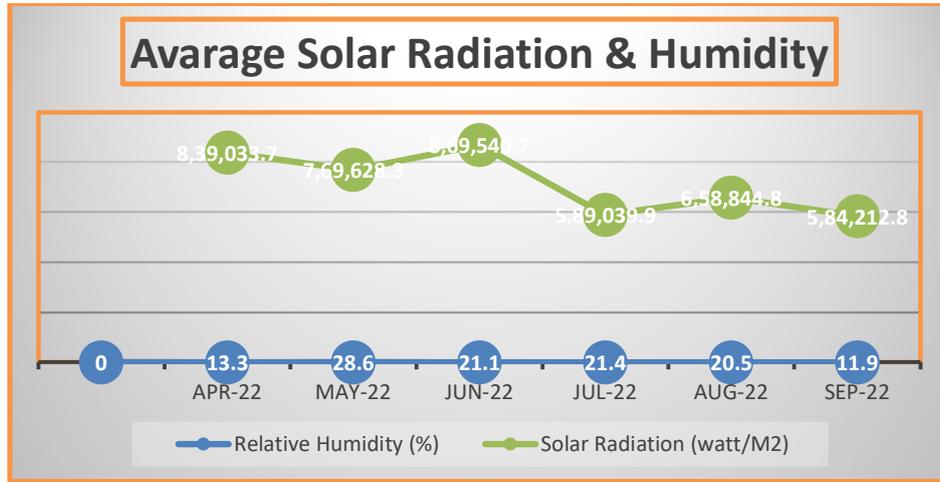
APM Port Pipavav has installed Meteorological Station at the roof of Gate Complex (Security gate no. 1), which are the entry point of Port. Details of Ambient Temperature, Wind Speed, Barometric Pressure, Humidity and Rain fall for the period **April- 2022 to September-2022** are as:

MED Data Six Month (April 2022 to September 2022)										
Month	Temperature (Deg C)			Relative Humidity (%)			Wind Speed (km/h)	Barometric Pressure	Rain (mm) Total	Solar Radiation (watt/M2)
	Max.	Min.	Average	Max.	Min.	Average	Average	mmHg		
Apr-22	41.0	18.0	29.2	89.9	11.1	52.6	13.3	1,010.3	0.0	8,39,033.7
May-22	39.7	11.8	30.4	86.9	18.5	62.8	28.6	1,009.1	0.0	7,69,628.3
Jun-22	37.0	9.0	29.3	87.8	28.7	68.2	21.1	1,008.6	0.0	8,69,540.7
Jul-22	34.9	9.2	27.1	93.3	56.4	80.0	21.4	1,008.5	715.2	5,89,039.9
Aug-22	36.6	9.3	28.2	93.1	48.4	76.3	20.5	1,008.2	234.6	6,58,844.8
Sep-22	39.1	8.1	29.7	92.5	36.8	68.8	11.9	1,009.1	223.4	5,84,212.8

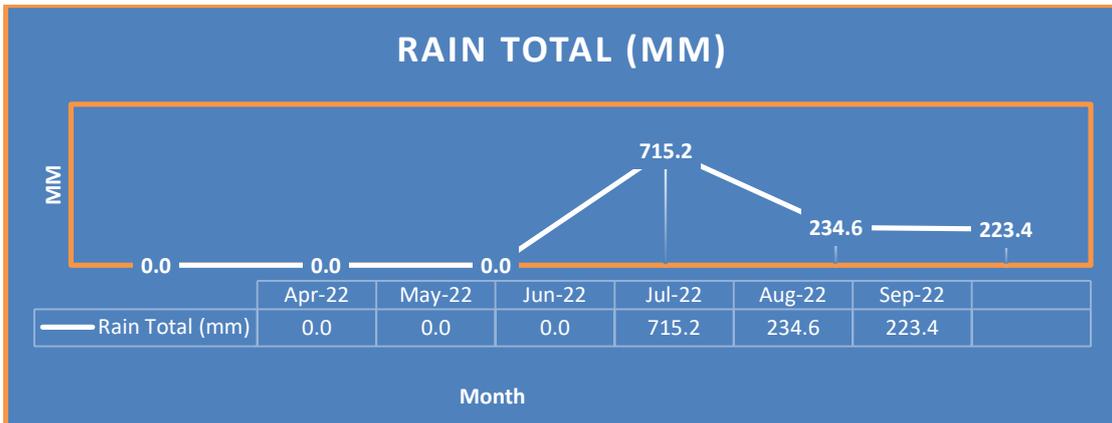


Ambient Temperature for the Period April 2022 to Sep-2022

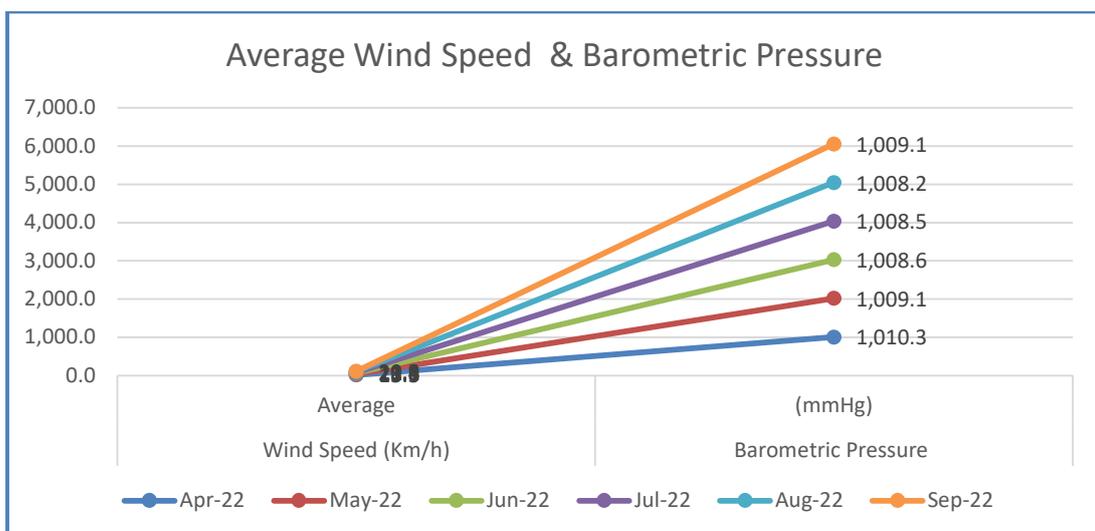
**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
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Average Relative Humidity & Solar radiation Data for the Period April-2022 to Sep-2022

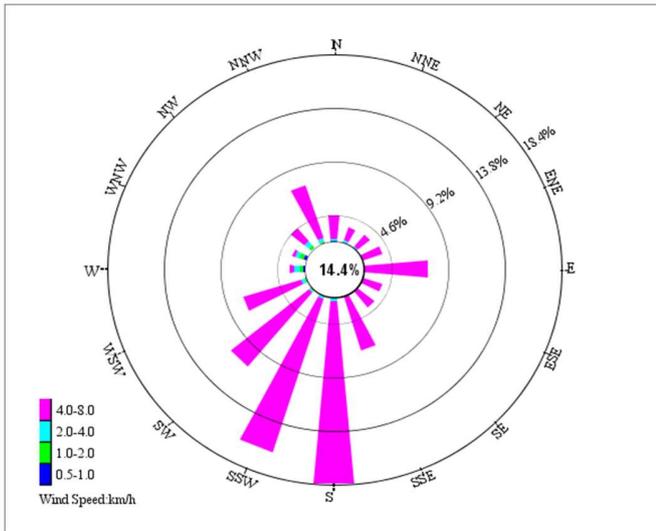


Rain Fall Data for the Period April-2022 to Sep-2022

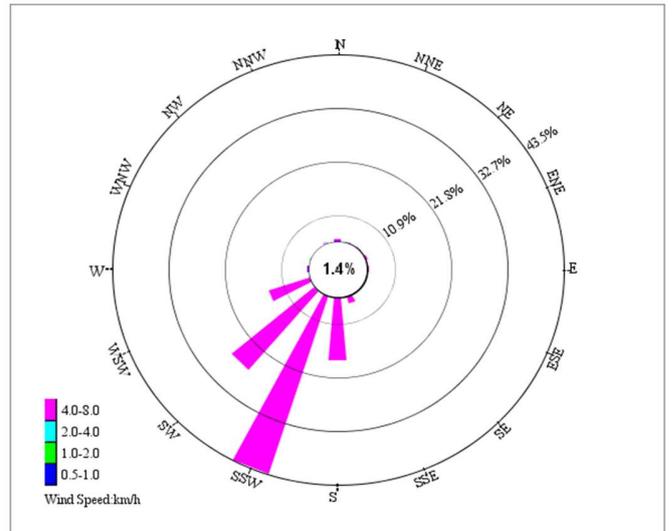


Average Wind Speed & Barometric pressure for the Period April-2022 to Sep-2022

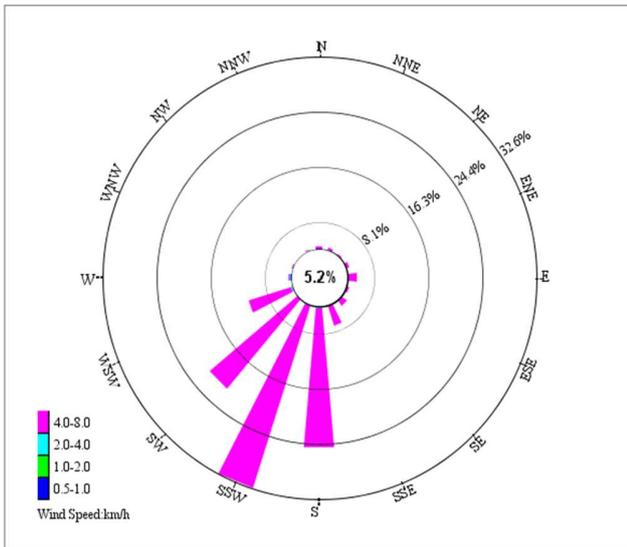
Compliance Status Report for "Environmental Clearance & CRZ Clearance" Accorded by the MoEF&CC for Gujarat Pipavav Port Limited



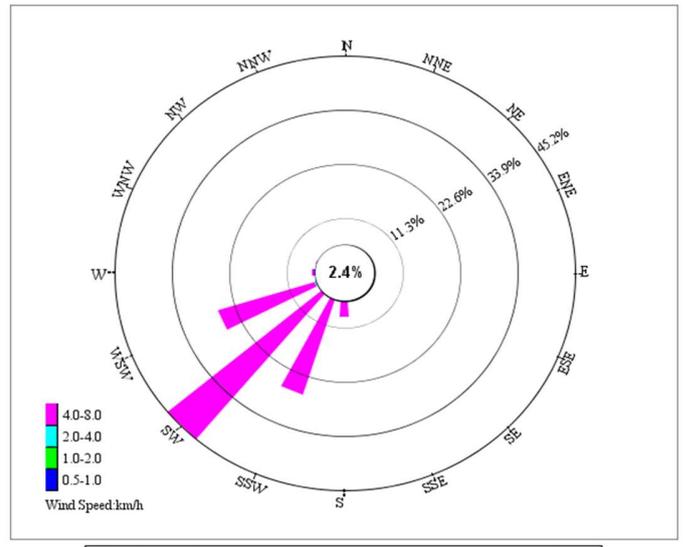
Windrose-> from:01-04-2022 to:28-04-2022 Between: 00:00 & 23:00 hours



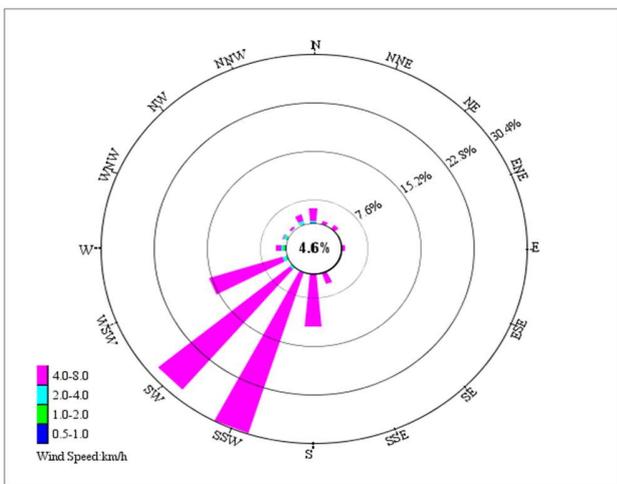
Windrose-> from:01-05-2022 to:31-05-2022 Between: 00:00 & 23:00 hours



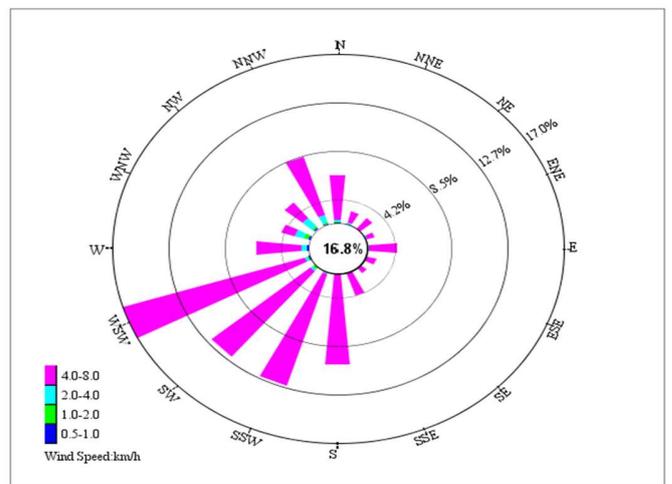
Windrose-> from:01-06-2022 to:30-06-2022 Between: 00:00 & 23:00 hours



Windrose-> from:01-07-2022 to:31-07-2022 Between: 00:00 & 23:00 hours



Windrose-> from:01-08-2022 to:30-08-2022 Between: 00:00 & 23:00 hours



Windrose-> from:01-09-2022 to:30-09-2022 Between: 00:00 & 23:00 hours

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

ENVIRONMENTAL MONITORING AT APM PORT PIPAVAV

1. Ambient Air Quality:

The scenario of existing Ambient Air Quality in the study area has been assessed through a network of 04 Ambient Air Quality locations which is inside & outside the port premises. One station is in buffer zone area and the rest 3 are in core zone area. The monitoring network in the air quality surveillance program has been established based on wind direction i.e.1 location in upwind direction,2 locations are in downwind direction & 1 in crosswind direction.

A third party NABL & MOEF&CC accredited laboratory, M/s. Kadam Environmental Consultant has been entrusted for carrying our Environmental monitoring, analysis & reporting of environmental parameters at locations designated within and outside port premises.

Pre- calibrated Fine dust samplers have been used for carrying out ambient air quality monitoring in line with provisions of National Ambient Air Quality Standards-2009 (NAAQS). The parameters monitored are PM10, PM 2.5, Sulphur dioxide (SO₂), Oxides of Nitrogen (NO_x) & Carbon Mono Oxide (CO). Environmental Monitoring activities at the site not performed in the month of April-2020 and up to May-2020 due to the COVID-19 restrictions imposed by Gov. of India.

2. **Flue Gas Emission:** Stack emission for 3 no. DG sets, analyzed for the parameters Particulate Matter (PM), Oxides of Nitrogen (NO_x) and Sulphur Di Oxide (SO₂) and all the results are well within the CPCB/GPCB limits.
3. **Noise Environment:** Noise level being monitored in Ambient, Work zone & for Occupational area at approx.15 Locations on monthly basis. The noise levels at each location were recorded for 24 hours (Day & Night), using integrated sound level meter, and all the results are well within stipulated norms.
4. **Water Quality:** The existing status of water quality for sea water and surface water was assessed by collecting the water samples from sea, Narmada river and water storage tank established at site. The overall water quality parameters have been found to be below the stipulated permissible limits.
5. **Wastewater Quality:** Inlet & Outlet samples of sewage Treatment Plant of 25 KL and 450 KL are taken and analyzed, and all the parameters are well within the limits. Treated water is being re-used for Green Belt development within Port premises.
6. **Solid waste Analysis:** Solid waste is being taken care by Amreli Municipal Corporation approved vendor on day-to-day basis from port area along with residential colony. Test report of solid waste is well within standards.
7. **Soil Analysis:** Soil analysis is being carried out on half yearly basis and report is being submitted along Half yearly EC Compliance Report.
8. **Fugitive Emissions:** Fugitive emissions are being monitored in CHP area and on Jetty along with Ammonia Monitoring in Fertilizer shed on quarterly basis.

**Compliance Status Report for “Environmental Clearance & CRZ Clearance”
Accorded by the MoEF&CC for Gujarat Pipavav Port Limited**

HAZARDOUS WASTE MANAGEMENT

A well-defined hazardous waste storage yard is established at site as per the guidelines, all the waste materials collected from the site is being stored here in a designated place and from HW storage yard it is being sold out to CPCB/GPCB registered Re-cyclers/Re-processors within stipulated timeline as per Hazardous Waste Management Rules.

Hazardous Waste Management Committee is formed at site for the disposal of waste as per the guidelines. Details of Hazardous waste disposed from the site is being submitted through Annual HW return.

BIO-MEDICAL WASTE MANAGEMENT

Bio-medical waste is being disposed of through M/s. Distromed (BMWTSD Facility)-Rajkot, which are authorized by GPCB. Details of waste disposed from the site is being submitted through Annual Bio Medical Waste return.

COVID-19: For the collection of Masks, face shield, Aprons & Hand globes a bio-waste designated bins are placed at various places in the Port Premises area. Bins are already marked with Bio-Hazard symbol. Bio-Waste from bins are being collected in yellow color-coded bags and being dispose to M/s. Distromed on every alternate day.

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APM Terminals Pipavav				
STACK AIR QUALITY DATA				
May-22				
D.G. Set Capacity		: D.G.Set-1 (1250 KVA) D.G.Set-2 (1250 KVA) & D.G.Set-3 (1250 KVA)		
Stack Height		: 12M		
Stack Dia		: 300 MM		
Months	Pollutants	Locations and Concentrations (in mg/Nm ³)		
		D.G.Set-1 (1250 KVA)	D.G.Set-2 (1250 KVA)	D.G.Set-3 (1250 KVA)
May-22	PM	72	75	68
	SO ₂	6.26	7.02	9.91
	NO _x	12.12	13.04	12.56

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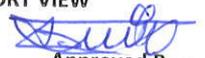


APM Terminals Pipavav									
AMBIENT AIR QUALITY									
April 2022 to September 2022									
Months	Pollutants	Locations and Concentrations (in $\mu\text{g}/\text{m}^3$)							
		AAQ1		AAQ2		AAQ3		AAQ4	
		Min	Max	Min	Max	Min	Max	Min	Max
Apr-22	PM10	45	63	44	57	43	59	53	68
	PM2.5	29	36	21	28	22	35	21	35
	SO2	7.01	9.26	6.93	7.72	8.34	10.23	9.33	12.02
	NO2	9.77	11.5	8.39	11.63	10.55	13.82	10.1	11.97
	CO	1482	1601	846	1212	925	1208	1207	1568
May-22	PM10	48	60	41	54	41	58	51	58
	PM2.5	27	32	19	27	25	31	22	33
	SO2	7.36	9.53	6.16	9.12	7.21	10.23	8.11	11.56
	NO2	10.65	12.77	8.83	10.06	12.23	14.87	9.71	13.64
	CO	1369	1608	1010	1313	888	1096	874	1306
Jun-22	PM10	48	58	43	50	43	56	50	59
	PM2.5	21	33	22	29	19	29	21	32
	SO2	7.20	10.62	5.40	8.17	9.09	12.11	10.08	13.23
	NO2	10.72	12.84	8.09	10.03	9.43	12.54	9.92	12.88
	CO	1472	1617	806	1222	956	1353	1215	1464
Jul-22	PM10	51	53	47	49	42	45	51	55
	PM2.5	21	22	23	25	19	21	25	27
	SO2	7.71	8.58	5.48	9.03	7.59	9.33	7.93	8.67
	NO2	11.23	11.36	9.93	10.25	9.59	10.05	10.21	10.52
	CO	1525	1602	928	1018	812	1136	1327	1450
Aug-22	PM10	38	44	46	53	43	48	49	57
	PM2.5	18	22	18	24	20	27	24	29
	SO2	7.12	9.0	6.77	8.32	8.6	9.5	7.73	10.01
	NO2	10.06	11.63	9.20	10.26	11.08	12.36	9.57	10.47
	CO	812	922	1092	1416	1010	1304	1228	1428
Sep-22	PM10	37	43	46	53	52	58	38	43
	PM2.5	18	23	18	25	18	29	26	32
	SO2	7.95	9.12	6.19	7.6	8.83	10.03	6.53	7.63
	NO2	9.93	11.63	8.83	10.02	11.89	13.2	9.59	11.2
	CO	844	1002	891	1056	1120	1226	1241	1453

A.A.Q = Ambient Air Quality

AAQ1 =Near Main Gate ,AAQ2 =Near Admin Building , AAQ3 = Near Marine Building ,

AAQ4 = HOTEL PORT VIEW


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APM Terminals Pipavav
SEWAGE WATER ANALYSIS REPORT
April 2022 to September 2022

JETTY

STP Outlet	Concentration of Pollutants (STP Outlet)					
	pH	BOD	COD	TSS	Oil & Grease	Residual Chlorine
PERMISSIBLE LIMITS: mg/l	5.5 to 9.0	10.00	50.00	50.00	10.00	..
Apr-22	7.50	20	75	22	<1	<0.1
May-22	7.71	18	68	29	<1	<0.1
Jun-22	7.89	16	62	25	<1	<0.1
Jul-22	-	-	-	-	-	-
Aug-22	-	-	-	-	-	-
Sep-22	-	-	-	-	-	-

TOWNSHIP

STP Outlet	Concentration of Pollutants (STP Outlet)					
	pH	BOD	COD	TSS	Oil & Grease	Residual Chlorine
PERMISSIBLE LIMITS: mg/l	5.5 to 9.0	10.00	50.00	50.00	10.00	..
Apr-22	7.56	16	59	27	<1	2.66
May-22	7.83	18	64	21	<1	2.06
Jun-22	7.69	14	58	19	<1	1.62
Jul-22	7.66	16	54	22	<1	1.24
Aug-22	7.48	19	68	20	<1	1.77
Sep-22	7.69	14	50	28	<1	1.37

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APM Terminals Pipavav
SEWAGE WATER ANALYSIS REPORT
April 2022 to September 2022

JETTY

STP Inlet	Concentration of Pollutants (STP Inlet)					
	pH	BOD	COD	TSS	Residual Chlorine	Oil & Grease
PERMISSIBLE LIMITS: mg/l			
Apr-22	7.02	91	331	143	<0.1	<1
May-22	7.25	93	342	153	<0.1	<1
Jun-22	7.19	86	338	162	<0.1	<1
Jul-22	-	-	-	-	-	-
Aug-22	-	-	-	-	-	-
Sep-22	-	-	-	-	-	-

TOWNSHIP

STP Inlet	Concentration of Pollutants (STP Inlet)					
	pH	BOD	COD	TSS	Residual Chlorine	Oil & Grease
PERMISSIBLE LIMITS: mg/l			
Apr-22	7.13	66	240	119	<0.1	<1
May-22	7.19	58	254	103	<0.1	<1
Jun-22	7.52	62	268	123	<0.1	<1
Jul-22	7.03	62	228	105	<0.1	<1
Aug-22	7.11	57	209	102	<0.1	<1
Sep-22	7.2	59	216	123	<0.1	<1

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APM Terminals Pipavav
Drinking Water Quality
april 2022 to September 2022

APM Terminals Pipavav				
Drinking Water Quality				
Parameters	Units	IS:10500 1991:2012(Acceptable Limits)	Apr-22	
			Monitoring Location	
			DW1	DW2
pH	..	6.5 to 8.5	7.86	7.92
Turbidity	NTU	1	<0.1	<0.1
Colour (Hazen Units)	Pt-CO	5	<1	<1
Sulphates	mg/L	200	46	43
Fluoride	mg/L	1	0.97	0.89
Nitrate	mg/L	45	1.15	0.86
Phenolic Compound	mg/L	0.001	<0.001	<0.001
Aluminium	mg/L	0.03	<0.03	<0.03
Hexavalent Chromium	mg/L	2	<0.02	<0.02
Arsenic	mg/L	0.01	<0.01	<0.01
Boron	mg/L	0.5	<0.05	<0.05
Cyanide	mg/L	0.05	<0.05	<0.05
Total Dissolved Solids	mg/L	500	189	188
Alkalinity	mg/L	200	140	160
Total Hardness	mg/L	200	130	140
Calcium	mg/L	75	38	35
Magnesium	mg/L	30	23	27
Residual Chlorine	mg/L	0.2	<0.1	<0.1
Chlorides	mg/L	250	22	25
Cadmium	mg/L	0.003	<0.003	<0.003
Copper	mg/L	0.05	<0.03	<0.03
Lead	mg/L	0.01	<0.01	<0.01
Iron	mg/L	0.3	<0.05	<0.05
Zinc	mg/L	5	<0.03	<0.03
Mercury	mg/L	0.001	<0.001	<0.001
Manganese	mg/L	0.1	<0.02	<0.02
Odour	..	Agreeable	Agreeable	Agreeable
Total Coliform	MPN/100 ml	Shall not be detectable in any 100 ml Sample	N.D.(<1.8)	N.D.(<1.8)
E. Coli	/100 ml		Absent	Absent

DW= Drinking Water DW1= Narmada Reservoir Inlet, DW2= Narmada Reservoir Outlet

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APM Terminals Pipavav									
Drinking Water Quality									
april 2022 to September 2022									
Parameters	Units	IS:10500 1991:2012) (Acceptable Limits)	May-22						
			Monitoring Location						
			DW1	DW2	DW3	DW4	DW5	DW6	
pH	..	6.5 to 8.5	8.03	7.96	7.51	7.8	7.97	8.11	
Turbidity	NTU	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Colour (Hazen Units)	Pt-CO	5	<1	<1	<1	<1	<1	<1	
Sulphates	mg/L	200	49	40	40	38	37	41	
Fluoride	mg/L	1	0.83	0.81	<0.05	<0.05	<0.05	<0.05	
Nitrate	mg/L	45	1.02	0.88	1.4	1.68	1.42	1.82	
Phenolic Compound	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Aluminium	mg/L	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Hexavalent Chromium	mg/L	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Arsenic	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Boron	mg/L	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Cyanide	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Total Dissolved Solids	mg/L	500	181	160	168	201	198	197	
Alkalinity	mg/L	200	120	150	60	50	80	70	
Total Hardness	mg/L	200	136	140	160	190	180	180	
Calcium	mg/L	75	40	38	38	34	34	34	
Magnesium	mg/L	30	22	23	28	26	27	29	
Residual Chlorine	mg/L	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Chlorides	mg/L	250	25	28	23	20	20	22	
Cadmium	mg/L	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
Copper	mg/L	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Lead	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Iron	mg/L	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Zinc	mg/L	5	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Mercury	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	mg/L	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Odour	..	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
Total Coliform	MPN/100 ml	Shall not be detectable in any 100 ml Sample	N.D.(<1.8)	N.D.(<1.8)	N.D.(<1.1)	N.D.(<1.1)	N.D.(<1.1)	N.D.(<1.1)	
E. Coli	/100 ml		Absent	Absent	Absent	Absent	Absent	Absent	

DW= Drinking Water DW1= Narmada Reservoir Inlet, DW2= Narmada Reservoir Outlet, DW3= Suvidha Store Purification Plant, DW4= Jetty Approach - 3, DW5= Fertilizer Shed, DW6= Township Canteen

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APM Terminals Pipavav

Drinking Water Quality

Parameters	Units	IS:10500 1991:2012(Acceptable Limits)	Jul-22 Monitoring Location		
			DW1	DW2	DW3
pH	..	6.5 to 8.5	8.34	8.71	8.19
Turbidity	NTU	1	<0.1	<0.1	<0.1
Colour (Hazen Units)	Pt-CO	5	<1	<1	<1
Sulphates	mg/L	200	42	40	35
Fluoride	mg/L	1	0.88	0.72	<0.05
Nitrate	mg/L	45	0.97	0.75	1.47
Phenolic Compound	mg/L	0.001	<0.001	<0.001	<0.001
Aluminium	mg/L	0.03	<0.03	<0.03	<0.03
Hexavalent Chromium	mg/L	2	<0.02	<0.02	<0.02
Arsenic	mg/L	0.01	<0.01	<0.01	<0.01
Boron	mg/L	0.5	<0.05	<0.05	<0.05
Cyanide	mg/L	0.05	<0.05	<0.05	<0.05
Total Dissolved Solids	mg/L	500	148	180	186
Alkalinity	mg/L	200	120	150	70
Total Hardness	mg/L	200	140	170	150
Calcium	mg/L	75	42	38	31
Magnesium	mg/L	30	25	26	20
Residual Chlorine	mg/L	0.2	<0.1	<0.1	<0.1
Chlorides	mg/L	250	25	26	19
Cadmium	mg/L	0.003	<0.003	<0.003	<0.003
Copper	mg/L	0.05	<0.03	<0.03	<0.03
Lead	mg/L	0.01	<0.01	<0.01	<0.01
Iron	mg/L	0.3	<0.05	<0.05	<0.05
Zinc	mg/L	5	<0.03	<0.03	<0.03
Mercury	mg/L	0.001	<0.001	<0.001	<0.001
Manganese	mg/L	0.1	<0.02	<0.02	<0.02
Odour	..	Agreeable	Agreeable	Agreeable	Agreeable
Total Coliform	MPN/100 ml	Shall not be detectable in any 100 ml Sample	N.D.(<1.8)	N.D.(<1.8)	N.D.(<1.8)
E. Coli	/100 ml		Absent	Absent	Absent

DW= Drinking Water DW1= Narmada Reservoir Inlet, DW2= Narmada Reservoir Outlet DW3= Suvidha Store Purification Plant

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APM Terminals Pipavav Drinking Water Quality

Parameters	Units	IS:10500 1991:2012(Acceptable Limits)	Aug-22 Monitoring Location		
			DW1	DW2	DW3
pH	..	6.5 to 8.5	8.21	8.19	9.16
Turbidity	NTU	1	<0.1	<0.1	<0.1
Colour (Hazen Units)	Pt-CO	5	<1	<1	<1
Sulphates	mg/L	200	39	36	16
Fluoride	mg/L	1	0.56	0.78	0.18
Nitrate	mg/L	45	1.1	0.8	0.59
Phenolic Compound	mg/L	0.001	<0.001	<0.001	<0.001
Aluminium	mg/L	0.03	<0.03	<0.03	<0.03
Hexavalent Chromium	mg/L	2	<0.02	<0.02	<0.02
Arsenic	mg/L	0.01	<0.01	<0.01	<0.01
Boron	mg/L	0.5	<0.05	<0.05	<0.05
Cyanide	mg/L	0.05	<0.05	<0.05	<0.05
Total Dissolved Solids	mg/L	500	160	154	528
Alkalinity	mg/L	200	130	140	260
Total Hardness	mg/L	200	140	130	280
Calcium	mg/L	75	27	21	2
Magnesium	mg/L	30	21	19	18
Residual Chlorine	mg/L	0.2	<0.1	<0.1	<0.1
Chlorides	mg/L	250	25	27	138
Cadmium	mg/L	0.003	<0.003	<0.003	<0.003
Copper	mg/L	0.05	<0.03	<0.03	<0.03
Lead	mg/L	0.01	<0.01	<0.01	<0.01
Iron	mg/L	0.3	<0.05	<0.05	<0.05
Zinc	mg/L	5	<0.03	<0.03	<0.03
Mercury	mg/L	0.001	<0.001	<0.001	<0.001
Manganese	mg/L	0.1	<0.02	<0.02	<0.02
Odour	..	Agreeable	Agreeable	Agreeable	Agreeable
Total Coliform	MPN/100 ml	Shall not be	N.D.(<1.8)	N.D.(<1.8)	N.D.(<1.8)
E. Coli	/100 ml	detectable in	Absent	Absent	Absent

DW= Drinking Water DW1= Narmada Reservoir Inlet, DW2= Narmada Reservoir Outlet DW3= permit ro


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APM Terminals Pipavav Drinking Water Quality

Parameters	Units	IS:10500 1991:2012(Acceptable Limits)	Sep-22 Monitoring Location		
			DW1	DW2	DW3
pH	..	6.5 to 8.5	8.06	8.23	8.14
Turbidity	NTU	1	<0.1	<0.1	<0.1
Colour (Hazen Units)	Pt-CO	5	<1	<1	<1
Sulphates	mg/L	200	35	37	4
Fluoride	mg/L	1	0.23	0.11	0.12
Nitrate	mg/L	45	0.66	0.51	0.51
Phenolic Compound	mg/L	0.001	<0.001	<0.001	<0.001
Aluminium	mg/L	0.03	<0.03	<0.03	<0.03
Hexavalent Chromium	mg/L	2	<0.02	<0.02	<0.02
Arsenic	mg/L	0.01	<0.01	<0.01	<0.01
Boron	mg/L	0.5	<0.05	<0.05	<0.05
Cyanide	mg/L	0.05	<0.05	<0.05	<0.05
Total Dissolved Solids	mg/L	500	186	154	170
Alkalinity	mg/L	200	130	110	120
Total Hardness	mg/L	200	150	130	80
Calcium	mg/L	75	20	22	4
Magnesium	mg/L	30	29	18	17
Residual Chlorine	mg/L	0.2	<0.1	<0.2	<0.3
Chlorides	mg/L	250	31.11	33	52
Cadmium	mg/L	0.003	<0.003	<0.003	<0.003
Copper	mg/L	0.05	<0.03	<0.03	<0.03
Lead	mg/L	0.01	<0.01	<0.01	<0.01
Iron	mg/L	0.3	<0.05	<0.05	<0.05
Zinc	mg/L	5	<0.03	<0.03	<0.03
Mercury	mg/L	0.001	<0.001	<0.001	<0.001
Manganese	mg/L	0.1	<0.02	<0.02	<0.02
Odour	..	Agreeable	Agreeable	Agreeable	Agreeable
Total Coliform	MPN/100 ml	Shall not be	N.D.(<1.8)	N.D.(<1.8)	N.D.(<1.8)
E. Coli	/100 ml	detectable in	Absent	Absent	Absent

DW= Drinking Water DW1= Narmada Reservoir Inlet, DW2= Narmada Reservoir Outlet DW3= permit ro

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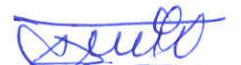
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APM Terminals Pipavav				
Pond Water Quality				
april 2022 to september 2022				
Parameters	Unit(SI)	Jul-22		
		nr wet well	nr ro plant	
		SW-1	SW-2	
pH		8.06	9.45	
Temperature	°C	26.9	27	
Sulphates	mg/L	75	10	
Ammonical Nitrogen	mg/L	0.52	503	
COD	mg/L	22	27	
BOD(3days at 27)0C	mg/L	5	8	
Total Dissolved solids	mg/L	614	1240	
Suspended solids	mg/L	28	23	
Oil and Grease	mg/L	<1	<1	
Arsenic	mg/L	<0.01	-	
Total hardness	mg/L	180	-	
Calcium Hardness	mg/L	92	-	
Magnesium Hardness	mg/L	55	-	
Chlorides	mg/L	216	152	
Lead	mg/L	<0.02	-	
Mercury	mg/L	<0.02	-	
Total Chromium	mg/L	<0.02	-	
Total Coliform	MPN/100ml	<0.02	-	
E Coli.	N.A.	Present	-	

SW= Surface Water
SW1=POND


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APM Terminals Pipavav			
Pond Water Quality			
april 2022 to september 2022			
Parameters	Unit(SI)	Aug-22	
		nr ro plant	
		SW-1	
pH		7.8	
Temperature	°C	27.4	
Sulphates	mg/L	257	
Ammonical Nitrogen	mg/L	1.31	
COD	mg/L	129	
BOD(3days at 27)0C	mg/L	36	
Total Dissolved solids	mg/L	3252	
Suspended solids	mg/L	19	
Oil and Grease	mg/L	<1	
Arsenic	mg/L	<0.01	
Total hardness	mg/L	190	
Calcium Hardness	mg/L	74	
Magnesium Hardness	mg/L	116	
Chlorides	mg/L	204	
Lead	mg/L	<0.02	
Mercury	mg/L	<0.02	
Total Chromium	mg/L	<0.02	
Total Coliform	MPN/100	N.D.(<1.8)	
E Coli.	N.A.	Absent	

SW= Surface Water
SW1=POND


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APM Terminals Pipavav				
Pond Water Quality				
april 2022 to september 2022				
Parameters	Unit(SI)	Sep-22		
		nr ro plant	nr railway line	
		SW-1	sw2	
pH		7.83	7.58	
Temperature	°C	26.3	25.1	
Sulphates	mg/L	794	426	
Ammonical Nitrogen	mg/L	48.09	26.19	
COD	mg/L	1339	62	
BOD(3days at 27)0C	mg/L	385	17	
Total Dissolved solids	mg/L	3868	1980	
Suspended solids	mg/L	24	46	
Oil and Grease	mg/L	<1	<1	
Arsenic	mg/L	-	<0.01	
Total hardness	mg/L	-	160	
Calcium Hardness	mg/L	-	48	
Magnecium Hardness	mg/L	-	112	
Chlorides	mg/L	101.25	269	
Lead	mg/L	-	<0.02	
Mercury	mg/L	-	<0.001	
Total Chromium	mg/L	-	<0.02	
Total Coliform	MPN/100	-	<0.02	
E Coli.	N.A.	-	Absent	

SW= Surface Water

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APM Terminals Pipavav Marine Water Quality april 2022 to september 2022 Apr-22		
Parameters	Unit(SI)	Monitoring Location
		Marine Water Shiyalbet
pH		8.74
Dissolved oxygen	mg/L	2.6
BOD (3 days at 27 °C)	mg/L	15
Oil & Grease	mg/L	<1
Fecal Coliform Bacteria	MPN/100ml	N.D.(<1.8)

Approved By -

APM Terminals Pipavav Marine Water Quality May-22		
Parameters	Unit(SI)	Monitoring Location
		Marine Water Shiyalbet
pH		8.91
Dissolved oxygen	mg/L	2.3
BOD (3 days at 27 °C)	mg/L	12
Oil & Grease	mg/L	<1
Fecal Coliform Bacteria	MPN/100ml	N.D.(<1.8)

Approved By -

APM Terminals Pipavav Marine Water Quality Jun-22		
Parameters	Unit(SI)	Monitoring Location
		Marine Water Shiyalbet
pH		8.6
Dissolved oxygen	mg/L	1.8
BOD (3 days at 27 °C)	mg/L	14
Oil & Grease	mg/L	<1
Fecal Coliform Bacteria	MPN/100ml	N.D.(<1.8)

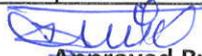
Approved By -

APM Terminals Pipavav Marine Water Quality Jul-22		
Parameters	Unit(SI)	Monitoring Location
		Marine Water Shiyalbet
pH		8.27
Dissolved oxygen	mg/L	2.8
BOD (3 days at 27 °C)	mg/L	22
Oil & Grease	mg/L	<1
Fecal Coliform Bacteria	MPN/100ml	N.D.(<1.8)

Approved By -

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APM Terminals Pipavav OCCUPATIONAL NOISE MONITORING april 2022 to september 2022		
Apr-22		
Month/Locations	day	night
	Medical Centre	59.2
Township Gate No. 2	52.1	58.6
Township Main Gate	51.3	48
Approved By-		
APM Terminals Pipavav OCCUPATIONAL NOISE MONITORING		
May-22		
Month/Locations	day	night
	Medical Centre	56.8
Township Gate No. 2	56	56.4
Township Main Gate	55.2	56.6
Approved By-		
APM Terminals Pipavav OCCUPATIONAL NOISE MONITORING		
Jun-22		
Month/Locations	day	night
	Medical Centre	46.1
Township Gate No. 2	62.1	55.1
Township Main Gate	56.4	54.9
 Approved By-		

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APM Terminals Pipavav OCCUPATIONAL NOISE MONITORING		
Jul-22		
Month/Locations	day	night
	Medical Centre	52
Township Gate No. 2	55.9	53.3
Township Main Gate	57.1	56
Approved By-		

APM Terminals Pipavav OCCUPATIONAL NOISE MONITORING		
Aug-22		
Month/Locations	day	night
	Medical Centre	57.6
Township Gate No. 2	54.9	56.5
Township Main Gate	55.7	54.4
Approved By-		

APM Terminals Pipavav OCCUPATIONAL NOISE MONITORING		
Sep-22		
Month/Locations	day	night
	Medical Centre	51.7
Township Gate No. 2	56.2	53.7
Township Main Gate	56.1	53.8
Approved By-		

A handwritten signature in blue ink, appearing to be 'S. K. Kadam', is written over the 'Approved By-' text of the September 2022 table.

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APM Terminals Pipavav WORKPLACE NOISE MONITORING april 2022 to september 2022		
Apr-22		
Month/Locations		
	day	night
Jetty Approach – 4	71.9	61.8
Jetty Approach – 5	78.9	81.9
Engineering Workshop	67.1	60.3
Fertilizer Shed	51.2	54.8
Project Side (Nr. Fertilizer Shed)	52.4	47.8
Fire Station	47.2	57.5
Store Area	55.1	57.2

APM Terminals Pipavav WORKPLACE NOISE MONITORING		
May-22		
Month/Locations		
	day	night
Jetty Approach – 2	69.5	71.7
Jetty Approach – 3	71.1	55
Engineering Workshop	68.7	54
Fire Station	53.8	53.7
Store Area	53	49.9
Fertilizer Shed	82.8	81.5
Project Side (Nr. Fertilizer Shed)	81.2	75.6

APM Terminals Pipavav WORKPLACE NOISE MONITORING		
Jun-22		
Month/Locations		
	day	night
Jetty Approach – 2	68.5	73.5
Jetty Approach – 3	56.8	52.3
Engineering Workshop	75.3	61.8
Fire Station	56.2	54.9
Store Area	50.9	55.5
Fertilizer Shed	48.6	80.9

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APM Terminals Pipavav WORKPLACE NOISE MONITORING		
Jul-22		
Month/Locations	day	night
	Jetty Approach – 2	79.2
Jetty Approach – 3	78.2	71
Engineering Workshop	60	55.1
Fire Station	58.3	53.4
Store Area	51.1	47.9
Fertilizer Shed	79.6	83.6

Approved By -

APM Terminals Pipavav WORKPLACE NOISE MONITORING		
Aug-22		
Month/Locations	day	night
	Jetty Approach – 2	68.4
Jetty Approach – 3	68.3	68.8
Engineering Workshop	69.1	65.9
Fire Station	53.9	52.3
Store Area	53.3	43.3
Fertilizer Shed	56.7	67.9

Approved By -

APM Terminals Pipavav WORKPLACE NOISE MONITORING		
Sep-22		
Month/Locations	day	night
	Jetty Approach – 2	80.6
Jetty Approach – 3	77.3	79.4
Engineering Workshop	64.9	60.8
Fire Station	58	53.7
Store Area	51.6	48.8
Fertilizer Shed	80.4	82

Approved By -

A handwritten signature in blue ink, appearing to be 'Sudhakar', is written over the 'Approved By -' text.

S. No	Project	Target Villages	Expected Outcome	Achievements
1	<p>Gyan Jyot: Eradicating poverty by enhancing the education level and behavioural change</p> <p>NGO-SWADEEP</p>	<p>Six focused villages: Shiyalbet, Rampara-2, Bherai, Kumbhariya, Kadiyali & Pipavav Dham</p>	<p>- Literacy rate of the project villages is less than 55% which is much below state literacy rate of 79.31%.</p> <p>-100% literacy, 100% enrolment, retention, mindset change, 100% board result and value driven quality education with the help of existing system, NIOS, IGNOU & BAOU</p> <p>-Academic performance enhancement of elementary school students and awareness about important days among youths.</p>	<p>a) Digital education support to 4000 students from Nursery to Senior Secondary School, remedial education of 354 elementary school students and 280 high school students through learning resource centres for academic performance enhancement.</p> <p>b) More than 5000 parents benefitted through home visits for one-to-one counselling for facilitating stress free exam to students, admissions related to the open university, girl's education, COVID vaccination, mental health, and dental hygiene etc.</p> <p>c) More than 5000 students participated through quiz, essay writing, group presentation etc. in the celebrations related to Independence Day, World Lion Day, World book Day, World Environment Day, World Ocean Day, World Yoga Day etc.</p> <p>d) Enrolment counselling and support (enrolment kit – school bag, water bottle, tiffin box and stationery etc) to 787 students spread over Nur to Class – XI along with enrolment of 07 students to open school.</p> <p>e) Other ongoing activities include adult literacy, personality development of adolescents, library-based activities, awareness about financial literacy and mental health etc.</p>
				

S. No	Project	Target Villages	Expected Outcome	Achievements
2	Spark: Mobile Science and Maths Lab NGO-SWADEEP	23 Villages of Rajula Taluka and 03 Schools of Rajula (Rampara, Bherai, Shiyalbet, Kadiyali, Kumbhariya, Pipavav Dham, Chhatadiya, Bhachadhar, Ningala, Vad, Uchhaiya etc)	- Improvement in the performance of Science and Math of School Students and awareness about Science and Technology among local students as well as villagers -Celebration of important Days related to Science, Maths and Technology.	More than 6000 students and science and maths teachers belonging to project villages participated/performed curriculum-based science and maths activities including demonstration and exhibitions. 
3	Raksha: Health and Safety: - Medical and Ambulance Support to the villagers through Port medical centre (Direct) -24 x 7 Advance Life Support Ambulance - Mobile Health Unit Service Provider: GVK Emergency Management and Research Institute (EMRI)	Rampara, Bherai and Shiyalbet  	Better Health Care for the Villagers and Emergency Medical Support 	a) 7900 villagers benefitted through OPD of the Port medical centre during first quarter. b) 5164 villagers benefitted through mobile health unit, the villagers were treated for skin disease, vertigo, urinary track infection, oral cavity, fever, joint pain, allergy etc. c) 251 ambulance trips for the emergency, referral, and advanced medical care to Rajula and Mahua benefitting 138 villagers.
4	Roshani: Bimonthly Eye Check-up Camps followed by cataract surgery at Sudarshan Netralaya, Amreli Service Provider: Gayatri Parivar Trust and Sudarshan Netralaya	Villagers of more than 75 villages  	Better quality of life due to enhanced vision among villagers.	Eye Check-up camp was organised on 8 th May 10 th July and 11 th September. Eye check-up was done for 730 villagers followed by cataract and other minor surgeries of 155 villagers at Sudarshan Netralaya, Amreli. 

S. No	Project	Target Villages	Expected Outcome	Achievements
5	<p>Pravah: Promotion of livelihood through natural resource management & socio-economic development in 5 villages of Rajula Block.</p> <p>NGO-Vivekanand Research and Training Institute (VRTI)</p>	<p>Seven villages: Shiyalbet, Rampara-2, Bherai, Kumbhariya, Kadiyali, Chatadiya and Vad</p>	<ul style="list-style-type: none"> - Large volume of water will be conserved through development of water harvesting structures and recharging structures (well) which will bring water table up and support irrigation to non-irrigated land. - Water recharging intervention will result in improved ground water quality and reduction in Total Dissolved Solids (TDS) - It will be possible to grow crops in two or three seasons instead of present cropping system based on monsoon. - Migration of Landless Labor will be reduced remarkably as they will get enough employment round the year. - Average economy of the region will improve because of higher and better yield at agriculture and horticulture fields. 	<ul style="list-style-type: none"> a) Monitoring of date palm demonstration plots for irrigation and nutrition management at Bhachadar, Kumbhariya and ucchaiya. b) Pond deepening work was completed at Kumbhariya, Bherai and Mota Ringaniyala leading to additional 0.68 mcft of water storage capacity. c) Construction of check dam at Kharvo River, Bherai was completed during first quarter, it will benefit 4184 farmers and villagers of Bherai. d) Pond deepening work was completed at Kumbhariya, Bherai and Mota Ringaniyala leading to additional 0.68 mcft of water storage capacity. e) More than 600 farmers participated in the capacity building sessions related to mental health, women empowerment, date palm cultivation, sustainable farming and world environment day celebration etc. 

S. No	Project	Target Villages	Expected Outcome	Achievements
6	<p>Saksham: Vocational skill development</p> <p>NGO-Ambuja Cement Foundation (ACF)</p>   	<p>Above three hundred villages</p> 	<p>-Skill and Entrepreneurship development of 470 youths with more than 80% placement.</p> <p>- Provide employment to unemployed youth at various industries with one-year hand holding support to placed candidates.</p> <p>-To have women's participation in skill development between 40 to 50%.</p>	<p>a) 1830 youths are trained in trades like Industrial Electrical, Fitter Fabrication, Electronics, Nursing, Machine Operator, Business Communication & Computer Numeric Control etc followed by placement of 1508 youths (M - 891; F -526; in the salary range of Rs. 8000 per month to 20,000 per month, some of them are also earning Rs. 40,000/- per month.</p> <p>b) 141 trained youths are self-employed, 17 Physically challenged youths are trained and placed leading to their enhanced self-esteem and better quality of life.</p> <p>d) Other ongoing activities include electrical repair camps in the project villages, capacity building of faculty of the Skill and Entrepreneurship Development Institute, placement related activities, mobilization for the enrolment and awareness about COVID 19 prevention and vaccination, nutrition, and mental health awareness etc.</p> 

S. No	Project	Target Villages	Expected Outcome	Achievements
7	<p>Udaan: Women Empowerment through Self-help Groups</p> <p>NGO: Vivekanand Research and Training Institute (VRTI)</p> 	<p>Women of the port surrounding villages like Rampara, Bheral, Kumbhariya etc.</p>	<ul style="list-style-type: none"> - Increase in the monthly income of women of the self-help group leading to better family life and socio-economic development. - Women will develop monthly saving habit hence freedom from the exploitation of money lenders. 	<p>a) We have 30 women self-help groups consisting of 329 poor women, their business activities include manufacturing of floor cleaner, plant nursery, snacks centre etc.</p> <p>c) Ongoing activities of the project includes capacity building of the members, business planning and marketing support.</p> 
8	<p>Sagar Mitra: Fisheries as a livelihood</p> <p>NGO-SWADEEP</p> 	<p>Shiyalbet, Thavi and Divalo</p>	<ul style="list-style-type: none"> - Quality improvement of dry fish through scientific intervention and awareness about diseases related to fishes. - Pagadiya kit, solar light, ice box will be made available through convergence with Fisheries Department. - Better Income of Boat & Pagadiya fisher folks through various interventions. 	<p>a) Capacity building and business plan support of women self-help group for fisheries. One to one counselling of more than 400 fisher men and women.</p> <p>b) Distribution of solar lantern among 183 poor fisher households along with repair of existing solar boat lights of fisher men/ women of Shiyalbet and Divalo.</p> <p>c) Ongoing activities include awareness about sustainable fishing practices, financial literacy, COVID prevention, vaccination, and mental health awareness and technological interventions for income enhancement.</p>

S. No	Project	Target Villages	Expected Outcome	Achievements
9	<p>Pashuuday: Sustainable livelihood through integrated livestock development in 45 villages of Rajula block of Amreli</p> <p>NGO-Bhartiya Agro industries Foundation (BAIF)</p> 	<p>Bherai Cluster: Bherai, Rampara , Kadiyali, Shiyalbet, Pipavav Dham, Jholapur, Ningala, Chaatadiya</p> <p>Charodiya Cluster: Charodiya, Barabtana, Kherali-Nani, Dipadiya, Vavera, Zanzarda, Babariya, Dhar etc.</p> <p>Dhudiya Agariya Cluster: DhudiyaAgariya, AgariyaMota, Agariya Nana, Dhareshwar, Mandardinavi, Vavdi, Bhakshi, Doliya, Chapri.</p> <p>Rajparda Cluster: Untiya, Hadmatiya, Khambhaliya, Devka, Kundaliyala, Ringanyala, Rajparda, Ganjavadar, Kumbhariya</p> <p>Barpatodi Cluster: Barpatodi, Khatar, Khakbhai, Kotadi, Zapodar, Hindorana, Chotri.</p> <p>(Total – 45 Villages)</p>	<ul style="list-style-type: none"> - Increase in livestock population by 30% - Increase in income of villagers through scientific livestock management by 40%. - Increase in awareness related to scientific management leading 100% insurance of livestock, 100% Artificial Insemination (AI) for better breeds etc. - 10% to 20% of the youth in rural area will take agriculture/ livestock management/ veterinary surgeon as a career. 	<ul style="list-style-type: none"> a) Cumulative calves born due to AI till Sept 2022: 5792 (M –2650, F – 3142) b) Cumulative Livestock insurance 1127, treatment of more than 1000 live stocks through mobile vet clinic and deworming of more than 9000 small animals. d) More than 630 livestock owners participated in the capacity building sessions on sustainable livestock development, sensitivity towards animals, informal meetings, and awareness on mental health. 

S. No	Project	Target Villages	Expected Outcome	Achievements
10	<p>Harit: Sustainable Agriculture project</p> <p>NGO: Coastal Salinity Prevention Cell (CSPC)</p> 	45 villages near the port	<ul style="list-style-type: none"> - Adoption of scientific agriculture practices. - Facilitating better irrigation and other sustainable agricultural practices followed by behavioural change processes. - Establishment and handholding of Farmer's Producer Company for the Sustainability of the Project. 	<p>a) 229 new farmers enrolled in the project leading to total enrolment of 5170 farmers, cumulative adoption of micro irrigation system by 534 farmers, intercrop and mulching more than 6000 units. Total agricultural land covered in the project is 10,680 Ha out of total 28,651 Ha of agricultural land in the project area.</p> <p>b) 2048 shareholders in the farmers producer company, Capacity building of more than 600 farmers through farmers field day, celebration of Work Environment Day, Water Day and one to one counselling.</p> <p>d) Other ongoing activities include counselling related to soil fertility, documentation for govt support, awareness for mental health of the farmers and annual general meeting of the farmer producer company etc.</p>
11	<p>Safe Drinking Water for all</p> <p>Maintenance Support: Manas Enterprises, Rajula</p>	12 Villages (Juni Mandardi, Navi Mandardi, Ningala, Jolapur, Hadmatiya, Untiya, Barpatoli, Navi Barpatoli, Khumbhariya, Motaagariya, Rajparda, Chhatadiya)	<ul style="list-style-type: none"> - Clean and healthy drinking water in project villages. - Expected downward trend in water borne diseases leading to decrease in absenteeism at School & workplace. - Increased awareness amongst villagers about water-borne diseases. - Increased adoption of safe drinking water usage practices by villagers. 	<p>12 water ATMs are operational and are being used by the villagers.</p> 