



Ports and
Logistics

Ref. No. AKPL/EHS-EC/MoEF&CC/097-2021

Date: 29/05/2021

To

The Additional Principal Chief Conservator of Forests (C)

Ministry of Environment, Forests & Climate Change

Regional office (South Eastern Zone),

1st & 2nd floor, HEPC Building, No.34,

Cathedral Garden Road,

Nungambakkam, Chennai-600034.

Sub: Submission of Half Yearly Compliance Report on conditions of Environmental Clearances for Phase – I, II & III Development of Krishnapatnam Port for the period of **October 2020 to March 2021** – Regd.

Ref: 1. EC for Phase-I of Krishnapatnam Port Ltr. No: 10-22/2005-IA-III dated 26.07.2006.
2. EC for Phase – II of Krishnapatnam Port Ltr. No. F.No.11-62/2009-IA.III dated: 13.11.2009.
3. EC for Phase -III Expansion of Krishnapatnam Port, F. No: 10-18/2016-IA.III dated 11.01.2021.


Dear Sir,

As per the General Condition no. 14 of the Environmental Clearance cited at 2, and Standard Condition, XI. Miscellaneous Condition no. (iv) of the Environmental clearance cited at 3, please find herewith attached condition wise six-monthly compliance report of Phase I, II & III developments of Krishnapatnam Port along with Environmental Monitoring Report for the period from **October 2020 to March 2021**.

Thanking you,

Yours faithfully,

For **ADANI KRISHNAPATNAM PORT LIMITED**



29/05/2021

G Venugopal Reddy

(Associate GM - EOHS)

Encl: Compliance Report on EC Conditions of Krishnapatnam Port Phase I, II & III development along with Environmental Monitoring Report for the Period of October' 2020 to March' 2021.

Copy to:

1. The Regional Director, CPCB Zonal office, Bangalore.
2. Environmental Engineer, A. P. Pollution Control Board, Regional Office, Nellore.

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ADANI KRISHNAPATNAM PORT LIMITED



COMPLIANCE REPORT ON CONDITIONS STIPULATED IN THE ENVIRONMENTAL CLEARANCE PHASE – I, II & III

PERIOD: October 2020 to March 2021

Compliance Report on Conditions Stipulated in the

Phase-I Environmental Clearance

Period: Oct' 2020 to Mar' 2021

**Compliance Report on Conditions of Environmental Clearance (EC) for
Krishnapatnam Port Phase – I;
MoEF Order dated 26.07.2006 - Period of Report "October, 2020 to
March, 2021"**

S.No.	Stipulation	Compliance Status
(A) Specific Conditions:		
1	All the conditions stipulated by Andhra Pradesh State Pollution Control Board in their letter Order No. APPCB/VJA/NLR/633/HO/2004/9 /467, dated 25.05.2004 should be strictly implemented.	Noted and being complied.
2	Detailed plan for protection of the 9 acres of the mangroves should be provided.	Complied The said 9 acres of Mangrove area situated in the salt lands. a) Display boards have been erected to protect this mangrove area b) Tidal exchange to the 9 acres mangrove area is ensured by constructing a pipe culvert.
3	The fisherman and salt pan workers should be rehabilitated as per the Rules of Government of Andhra Pradesh.	Complied.
4	Adequate shore protection measures, including construction of revetments/rip-raps, should be taken up based on the scientific studies. The action plan for implementing the shore protection measures should be submitted to this Ministry within 6 months from the date of receipt of this letter.	Complied. Hydro dynamic studies were conducted by M/s. HR Wallingford, UK, shoreline monitoring & Marine biodiversity studies are being carried out regularly for shore protection.
5	Green belt area should be developed along the project and budget earmarked.	Complied. At present Greenbelt of 191.5 Ha (Phase-I&II) has been developed along port boundary, around coal yards, avenue & median plantations.
6	For rail and road connectivity of the project, separate application should be submitted to this Ministry.	Noted
7	The Bay is reported to be calm for most of the days of the year. Even on the day of the visit, having a	Noted. Dredging is programmed in phases, ensures the impact, if any, will be minimal.

	deep depression in South-West Bay of Bengal, the basin was calm, though the Bay experienced high waves. Hence, dredging operation in the estuary should not have any adverse impact on the existing mangroves blocks.	
8	During the rough weather, resulting in high flood tides, dredging operation in the estuary should be stopped.	Noted and being complied.
9	Regarding the location of stock yard in the salt pan area to be acquired, the proponent should not take up any developmental works in the mangrove area and should ensure that no destruction of mangroves takes place.	Noted.
10	A disaster management plan covering emergency evacuation mechanisms etc., to deal with natural disaster events should be prepared and furnished to the Ministry.	Complied. Disaster Management Plan covers emergency evacuation mechanisms to deal with natural disaster events and it is regularly being updated time to time. The last update was on 11.06.2018 and submitted to RO, MoEF&CC along with six monthly compliance report vide our letter dated 30.05.2020
11	The company must take up and earmark adequate funds for the socio-economic development and for welfare measures in the area including drinking water supply, vocational training, and fishery related development programmes (like cold storages).	Complied. As part of Corporate Social Responsibility (CSR), socio economic development schemes and welfare measures in the form of Roads, Drains, Drinking water supply by providing tankers and overhead tanks, sanitation and public health, roads and street lighting in the R&R Colonies, supply of cooking gas connections along with stoves, housing, medical aid, educational assistance, student hostel, old age homes, financial aid, imparting vocational trainings for skill development to improve employment opportunities, women empowerment etc., are being taken up for the 98 neighborhood villages covering 6 Mandal with adequate funds earmarked for the same.
12	The fishing activities by the fishermen living in the settlement along the creek should not be	Complied. The fishermen have been rehabilitated by the GoAP. Mechanism for movement of

	hindered and a mechanism may be evolved for the movement of fishing boats vis-a-vis shipping activities.	fishing boats vis-à-vis shipping is evolved keeping in mind the safety, security, ISPS and customs requirements.
13	The Relocation of the fishermen and local communities in the area should be done strictly in accordance with the norms prescribed by the State Government. The relocated communities should be provided with all facilities including health care, education, sanitation and livelihood.	Complied. GoAP Rehabilitated the Fishermen and Local Communities. Krishnapatnam Port provided infrastructure facilities under CSR activities at the Rehabilitation Colony in the form of Roads, Drains, drinking water supply, supply of cooking gas, housing, educational assistance, student hostels, old age homes, financial aid, imparting vocational trainings, women empowerment and public health, Malaria Control measures, Medical and Health camps in R&R colony covering 4 locations Andal Nagar, Mathura nagar, Ramalingapuram & Simhadri Nagar.
14	The company should take up green belt program in the project area including an ecological park and the plan may be submitted to the Ministry within one year.	Complied. Green belt of 191.5 Ha has been developed along port boundary, around coal yards, avenue & median plantations. Ecological park developed.
15	The company may suitably modify the alignment of channel entrance including its width, turning circle, taking into consideration the wave traversal, its intensity etc., to facilitate smoother navigation of ships.	Complied. The channel alignment is firmed up after undertaking numerical navigation simulation studies dated March, 2009 by M/s. HR Wallingford, UK.
16	The breakwater alignment and its design should be further modified based on relevant model studies, borehole data etc., keeping in view the tranquility condition required for berthing and maneuvering of ships and subsequent cargo handling operations.	Complied. The alignment and design of breakwaters are firmed up based on geotechnical investigations, geotechnical stability analysis, Numerical model studies undertaken by M/s. HR Wallingford, UK, 3D model studies of tranquility conducted at Lanka Hydraulic Laboratories, Sri Lanka and Physical model studies of breakwaters at IIT Chennai.
17	The height of dumping in the dumping site should be restricted to 30 cm against 90 cm proposed.	Being Complied. Bathymetry of dumping site is being monitoring periodically to avoid build up.
18	The project proponent will not undertake any destruction of mangroves during construction and operation of the project.	Complied. Existing mangrove areas are being protected and conserved with suitable

		barricading, erection of display boards and ensuring the tidal flow.
19	Sewage arising in the port area should be disposed off through septic tank – soak pit system or should be treated along with the industrial effluents to conform to the standards stipulated by Andhra Pradesh Pollution Control Board and should be utilized/ recycled for gardening, plantation and irrigation.	Complied. 300 Kilo Liters per day (KLD) capacity of Sewage Treatment Plant (STP) at Amenities Blocks is commissioned in July, 2011. Treated water is being utilized for the green belt development within port premises. Septic tank and soak pit systems are being followed at offices and isolated buildings.
20	Adequate plantation should be carried out along the roads of the Port premises and a green belt should be developed.	Complied.
21	Project proponent should prepare and regularly update the Disaster Management Plan from time to time.	Complied. Disaster Management Plan is regularly being updated time to time. last update was on dt:11.06.2018.
22	Fire Fighting arrangements are examined to the new proposal.	Complied. a) Port has developed dedicated fire-fighting system with required equipment and trained professionals. b) Developed Fire contingency plan and implementing the same. c) Port Tugs are also having firefighting equipment
23	There should be no withdrawal of ground water in CRZ area, for this project. The proponent should ensure that as a result of the proposed constructions, ingress of saline water into ground water does not take place. Piezometers should be installed for regular monitoring for this purpose at appropriate locations on the project site.	Noted and being-Complied There is no withdrawal of ground water. The water requirement is being met through water from Nakkala kalava & Muthukur reservoir.
24	The project should not be commissioned till the requisite water supply and electricity to the project are provided by the PWD/Electricity Department.	Noted. Required necessary permissions like water supply and electricity supply are obtained from concern departments.
25	Specific arrangements for rainwater harvesting should be made in the project design and the rain water so harvested should be	Complied. 13 Rainwater harvesting ponds located at various locations in Port premises.

	optimally utilized. Details in this regard should be furnished to this Ministry's Regional Office at Bangalore within 3 months.	
26	The facilities to be constructed in the CRZ area as part of this project should be strictly in conformity with the provisions of the CRZ Notification, 1991 as amended subsequently.	Complied.
27	Green buffer zone should be provided all around the project area in consultation with local forest department and the report submitted to this Ministry's Regional Office at Bangalore.	Complied. Green belt of 191.5 Ha has been developed along port boundary, around coal yards, avenue & median plantations in consultation with local forest department.
28	No product other than those permissible in the Coastal Regulation Zone Notification, 1991 should be stored in the Coastal Regulation Zone area.	Noted.
(B) General Conditions		
1	Construction of the proposed structures should be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification 1991 & its amendments. All the construction designs / drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments / Agencies.	Complied. The construction designs / drawings are in conformity to the detailed project reports approved by GoAP and consistent with the CRZ Notification.
2	Adequate provisions for infrastructure facilities such as water supply, fuel, sanitation etc., should be ensured for construction workers during the construction phase of the project so as to avoid felling of trees/mangroves and pollution of water and the surroundings.	Complied. Adequate provisions including water supply, fuel and sanitation were ensured for workers at the time of construction.
3	The project authorities must take necessary arrangements for disposal of solid wastes and for the treatment of effluents by providing	Complied. a) Solid wastes are being collected, segregated and disposed as under:

	a proper waste water treatment plant outside the CRZ area. The quality of treated effluents, solid wastes and noise level etc., must conform to the standards laid down by the competent authorities including the Central / State Pollution Control Board and the Union Ministry of Environment and Forests under the Environment (Protection) Act, 1986, whichever are more stringent.	S. No.	Material	Method of Disposal
		1	Biodegradable waste	Composting & used as manure/ Send to Pig Farms
		2	Non-Biodegradable waste	Disposal to approved recyclers
		3	Used Oils/Used Batteries	Batteries are procured on buy back basis and Used oil is being disposed to approved vendors of APPCB
		b) 300 KLD STP is commissioned and located outside the CRZ area. c) Treated effluent conforms to APPCB norms and is recycled for Green Belt development. d) Noise levels are regularly being monitored and they comply to standards.		
4	The proponents should provide for a regular monitoring mechanism so as to ensure that the treated effluents conform to the prescribed standards. The records of analysis reports must be properly maintained and made available for inspection to the concerned State / Central officials during their visits.	Complied. a) Environmental Monitoring is being carried out through an agency accredited by NABL and approved by MoEF&CC. Results of monitoring conform to norms and periodical Monitoring Reports are being submitted to APPCB regularly. b) Records of analysis reports are properly maintained and are being made available for inspection to the concerned state/ central officials during their visits.		
5	In order to carry out the environmental monitoring during the operational phase of the project, the project authorities should provide an environmental laboratory well equipped with standard equipment and facilities and qualified manpower to carry out the testing of various environmental parameters.	Complied. Port engaged NABL accredited Environmental monitoring laboratory to carry out Environmental monitoring during the operational phase of the project.		

6	The sand dunes and mangroves, if any, on the site should not be disturbed in any way.	Noted and being Complied.
7	A copy of the clearance letter will be marked to the concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	Complied. Copies of Environmental Clearance letters were submitted to Sarpanch, Krishnapatnam Grama Panchayat, Nellore on 10 th August, 2006 and to President, Nellore District Mechanized Fishing Boat Operators Association on 10 th August, 2006.
8	The Andhra Pradesh Pollution Control Board should 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.
9	The funds earmarked for environment protection measures should be maintained, in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported to this Ministry's Regional Office at Bangalore and the State Pollution Control Board.	Noted. The expenditure incurred for the environmental safeguards for the year 2020-21 is Rs. 4.18 Crores and budget for 2021-22 is Rs. 6.0 Crores.
10	Full support should be extended to the officers of this Ministry's Regional Office at Bangalore and the officers of the Central and State Pollution Control Boards by the project proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative measures and other environmental protection activities.	Noted and being complied.
11	In case of deviation or alteration in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition	Noted.

	of new ones for ensuring environmental protection.	
12	The Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Noted.
13	The Ministry or any other competent authority may stipulate any other additional conditions subsequently, if deemed necessary, for environmental protection, which should be complied with.	Noted.
14	The project proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at http://www.envfor.nic.in . The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bangalore.	Complied. Advertisement was published in Local Newspaper namely Andhra Jyothi dated 11.08.2006. A copy of the advertisement was submitted to the Regional Office, Bangalore of MoEF vide our Letter No.KP/MOEF/346 dated 23.08.2007.
15	The project proponents should inform the Regional Office at Bangalore 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. Details were furnished to the MoEF&CC, Regional Office, Bangalore, vide our letter no. KP/MOEF/60 dated 16 th Feb, 2007. Financial Closure: 16.10.2006 Approval of the Project by GoAP: 17.09.2004 Start of Land Development June, 2006
16	The above mentioned stipulations will be enforced among others under the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act, 1981, the	Noted and being complied.

	<p>Environment (protection) Act, 1986, the Hazardous Chemicals (Manufacture, Storage and Import) Rules, 1989, the Coastal Regulation Zone Notification, 1991 and its subsequent amendments and the Public Liability Insurance Act, 1991 and the Rules made there under from time to time. The project proponents should also ensure that the proposal complies with the provisions of the approved Coastal Zone Management Plan of Andhra Pradesh State and the Supreme Court's order dated 18th April, 1996 in the Writ Petition No.664 of 1993 to the extent the same are applicable to this proposal.</p>	
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Compliance Report on Conditions Stipulated in the

Phase-II Environmental and CRZ Clearance

Period: Oct'2020 to Mar' 2021

**Compliance report on conditions of Environmental Clearance
(EC) for Krishnapatnam Port for Phase – II
MoEF Order dated 13.11.2009 Period of Report "October 2020
to March 2021"**

S. No.	Stipulation	Compliance Status
5. Specific Conditions:		
1.	All the conditions as stipulated by the Forests & Environment Department, Govt. of Andhra Pradesh vide letter No.2286/CZMA/2009, dated 11.05.2009 shall be strictly complied.	Noted and being complied.
2.	<p>All the details / information submitted by the project proponent vide letter No.KP/MOEF/PH-II/174, dated 17.08.2009 shall be strictly complied.</p> <p>The details are as follows:</p> <p>(i) Southern Boundary of proposed dredge disposal area of Phase-II shall be moved towards North to coincide with Northern Boundary of Phase-I dredge disposal area.</p> <p>(ii) Impact of bridges & conveyor across creeks to be re-examined to avoid impact on mangroves.</p> <p>(iii) To engage INCOIS or other reputed organization to monitor coastal behavior for a longer period.</p> <p>(iv) Runoff from Coal Stock piles shall be collected in dump ponds and recycled for dust suppression and fire protection.</p>	<p>Complied.</p> <p>(i) Southern Boundary of proposed dredge disposal area of Phase-II has been moved towards North to coincide with Northern Boundary of Phase-I dredge disposal area.</p> <p>(ii) Belt Conveyors and Road Bridge crossings have no impact on Mangroves. Railway Bridge Location is reworked to avoid disturbance to mangroves.</p> <p>(iii) M/s. Indian National Centre for Ocean Information Services (INCOIS) was engaged for coastal monitoring. As per their Report for 2008-10, the port development has not impacted the coast.</p> <p>(iv) Runoff from coal storage yards is routed through peripheral drains, collection pits and guard (Dump) ponds with facility to recycle the water for dust suppression.</p>
3.	The hydro-dynamic studies shall be undertaken to ascertain the impact to the shoreline in the stretch and ecologically sensitive areas and the report shall be submitted to the Ministry.	<p>Complied.</p> <p>a) The hydro-dynamic studies to ascertain the impact of port development on the shoreline in the stretch have been carried out through M/s.HR Wallingford, UK. No long term impact is noticed due to minimal net drift along the coast at Krishnapatnam Port.</p>

		<p>b) However, as recommended in their report dated October, 2007, 7 Km of coast line both North and South of the port entrance is monitored through M/s. Indian National Centre for Ocean Information Services (INCOIS), Hyderabad using satellite imagery.</p> <p>c) From the INCOIS report for the period October 2008 to January 2010, the coastline is found to be stable.</p> <p>d) Shoreline monitoring further carried out in-house also revealed that the coast line is unaffected except for seasonal variations.</p>
4.	Ministry has taken a decision that the plantation of mangroves shall be undertaken on an area of 50 ha. as the Phase-II of the project spreads over 800 ha.	<p>Complied.</p> <ol style="list-style-type: none"> 1. Mangroves development in 50 Ha is undertaken in the port, in the areas suggested by GoAP. 2. For the current year 2021-22, Rs. 2.50. lakh is budgeted towards mangrove protection.
5.	Six monthly monitoring shall be carried out and a comparative analysis shall be made to examine for any mitigative measures required.	<p>Complied.</p> <p>The Six monthly Environmental Monitoring Report of AAQ, Noise, Marine and ground water, Marine Sediment and Soil with comparative analysis are examined, findings shows all values are within limits and ensured mitigative measures implemented. Reports are being submitted to Ministry and APPCB. Same is enclosed to this report as Annexure-1.</p>
6.	The temperature, salinity and tidal inflow shall be monitored weekly.	<p>Complied.</p> <p>Monitoring is being carried out on weekly basis with a NABL accredited consultant and same is being reported.</p>
7.	The greenbelt of 100 m. width shall be developed around the coal stack yard as per the request in the public hearing.	<p>During Public Hearing it was requested to form 100 m width of green belt along boundary.</p> <p>MoEF has been requested vide Itr. No.: KP/MOEF/113 dt. 29th August 2012 to modify this condition suitably.</p> <p>100 m Green belt along the boundary and 20 m wide green belt around coal stack yards is being developed as requested during public hearing.</p>
8.	Impact on the drawl of the water from the Kandaleru Creek shall be	Noted and being Complied

	regularly monitored and report submitted to the Ministry.	Water is not drawn from Kandaleru Creek and quality of water is being monitored and reported.
9.	Continuous monitoring on disposal of dredged material shall be put in place for both pre and post monsoon periods.	Complied Bathymetry of the disposal area of dredged material i.e., the dumping grounds is being monitored periodically.
10.	No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Noted and being Complied. only permitted construction works in CRZ area were carried out at site.
11.	Oil spills if any shall be properly collected and disposed as per the Rules.	Complied. Oil Spills, if any, shall be managed as per the approved Oil Spill Contingency Plan. We have procured Oil Boom, Skimmer and chemicals. Staff are trained to cater to Tier-I Oil spills. As per Disaster Management Plan, Indian Coast Guard will be alerted to Coordinate.
12.	The approach channel shall be properly demarcated with lighted buoys for safe navigation and adequate traffic control guidelines shall be framed. The fishermen shall be suitably educated and informed about the traffic guidelines.	Complied. The approach channel is marked with lighted buoys for safe navigation. Adequate traffic control guidelines are framed and copy was submitted to the Fisheries Department to suitably inform fishermen.
13.	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Complied. Environmental Cell has been set-up under the supervision of the COO. Environmental review meetings are being held regularly for effective implementation of stipulated safeguards. i) Accreditation to International Management Systems a. Krishnapatnam Port is accredited to and complying with the following International management Systems: <ul style="list-style-type: none"> • ISO 14001 Environmental Management System • ISO 9001 Quality Management System • ISO 45001 OH & Safety Management • ISO 28000 Specification for Security Management System for the Supply Chain.

		<p>b. Following environmental protection measures are being implemented in the port:</p> <p>i) To Improve AAQ:</p> <ul style="list-style-type: none"> • Installation and operation of Mechanical Dust Suppression System (MDSS) with 248 nos of sprinklers at coal stacking and wagon loading areas. • Deploying 10 no's of Truck mounted water sprinklers for roads and transit areas. • Deploying 2 nos. of Vacuum road sweeping machines. • Deploying 13 nos. of heavy duty Atomized Sprayers • Deploying Hoppers for unloading • Mechanized coal handling at 2 berths within the land so far transferred on lease by GoAP. Conveyor covering with hood. • Developed paved roads and resorted to mechanical sweeping of roads. • Tarpaulin Covering of Railway wagons coal transport vehicles destined outside the port. • Developed wind shield/screen and warehouses of 12 m height on west part of (Fast Track Process) FTP-1 and North side towards Krishnapatnam village in coal yards. • 191.5 Ha. of Greenbelt has been developed along port boundary, around coal yards and avenue & median plantations. • Developed firefighting contingency plan, procured necessary fire tenders and other equipment and deployed trained personnel. • Monitoring AAQ at 7 locations through NABL accredited & MoEF approved agency.
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		<ul style="list-style-type: none"> Commissioned 3 no's CAAQM Equipment in the port & linked to APPCB website. <p>ii) To Improve Water Quality:</p> <ul style="list-style-type: none"> Developed runoff drains, collections pits, guard ponds for coal storage yards with provision for recycling for dust suppression. Developed truck wash with oil separator and settlement pits with provision for recycling for dust suppression. Developed 300 KLD STP and treated effluent is recycled for dust suppression and green belt. Monitoring of Marine water quality, Marine sediment quality, Surface Water Quality and ground water quality at regular intervals. <p>ii) To Improve Oil Spillage Control:</p> <ul style="list-style-type: none"> Developed Oil Spill Contingency plan for Tier-I spills, procured necessary equipment and chemicals and deployed trained personnel. Trainings and periodical mock drills are being organized for the work force Developed on-site emergency plan duly reviewed by former DGFASLI and submitted to District administration for integrating with Off-Site Emergency plan. <p>iii) To improve occupational Health:</p> <ul style="list-style-type: none"> Personal Protection Equipment (PPEs) are provided to all the workers and ensuring that all the work force uses the same regularly Periodical health checkup at the port dispensary is ensured for workers engaged in coal handling
14.	No destruction of mangrove is permitted. The project proponent shall take up mangrove plantation /	<p>Noted and being Complied.</p> <ol style="list-style-type: none"> Developed mangroves of 50 Ha in the Port area suggested by GoAP.

	green belt in the project area, wherever possible. Adequate budget shall be provided in the Environment Management Plan for such mangrove development.	2. For the current year 2020-21 Rs. 2.50 lakh is budgeted towards Mangrove Protection.												
15.	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Complied. An amount of Rs. 4.18 Crores has been utilized for Environment management for 2020-21 and budget for 2021-22 Rs. 6.0 Crores												
16.	There shall be no withdrawal of groundwater in Coastal Regulation Zone area, for this project. In case any groundwater is proposed to be withdrawn from outside the CRZ area, specific prior permission from the concerned State / Central Groundwater Board shall be obtained in this regard.	Complied. No groundwater is being drawn from the Coastal Regulation Zone.												
17.	The Hazardous waste generated shall be properly collected and handled as per the provisions of Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008.	Complied. Hazardous waste like used oils / grease and batteries are being collected and handled as per the provisions of Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2016.												
18.	The waste water generated from the activity shall be collected, treated and reused properly.	Complied. A 300 KLD STP is commissioned and is operational. The treated effluent is recycled for greenbelt development												
19.	Sewage Treatment facility should be provided in accordance with the CRZ Notification.	Complied.												
20.	No solid waste will be disposed of in the Coastal Regulation Zone area. The solid waste shall be properly collected, segregated and disposed as per the provision of Solid Waste (Management and Handling) Rules, 2000.	Noted and Complied. Solid wastes are being collected, Segregated and disposed as under <table border="1"> <thead> <tr> <th>S. No.</th><th>Material</th><th>Method of Disposal</th></tr> </thead> <tbody> <tr> <td>1</td><td>Biodegradable waste</td><td>Composting & used as manure/ Send to Pig Farms</td></tr> <tr> <td>2</td><td>Non-Biodegradable waste</td><td>Disposal to approved recyclers</td></tr> <tr> <td>3</td><td>Used Oils/Used Batteries</td><td>Batteries are procured on buy back basis and Used oil is being disposed to</td></tr> </tbody> </table>	S. No.	Material	Method of Disposal	1	Biodegradable waste	Composting & used as manure/ Send to Pig Farms	2	Non-Biodegradable waste	Disposal to approved recyclers	3	Used Oils/Used Batteries	Batteries are procured on buy back basis and Used oil is being disposed to
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				approved vendors of APPCB
21.	Installation and operation of DG set if any shall comply with the guidelines of CPCB.	Noted. Diesel Generator Sets being used are in the range of 80 KVA to 500 KVA only as back up for emergency lighting & safety during power breakdowns and these DG sets comply with the guidelines of Central Pollution Control Board (CPCB).		
22.	There shall be no reclamation / dredging of areas.	Not applicable. This condition is deleted vide MoEF letter no. F. No. 11-62/2009-IA.III Dated: 2 nd March, 2010.		
23.	Air quality including the VOC shall be monitored regularly as per the guidelines of CPCB reported.	Not applicable. a) This condition pertaining to VOC monitoring is deleted vide MoEF letter F. No. 11-62/2009-IA.III Dated: 2 nd March, 2010. b) Air quality monitoring is regularly being carried out at 7 locations through an agency accredited by NABL and approved by MoEF&CC. Results of monitoring comply with the norms. Periodical Monitoring Reports are being submitted regularly to APPCB.		
24.	The project proponent shall undertake green belt development.	Complied. Greenbelt has been developed progressively in the port i.e., 100 m wide greenbelt along periphery and 20 m around coal and iron ore stacks, total Greenbelt required by end of Phase-I & II is 191.5 Ha.		
25.	Necessary clearances from all the concerned agencies shall be obtained before initiating the project.	Complied. Clearances from the concerned agencies like Krishnapatnam Village Panchayat, Fishing Boat Operators Association, Nellore; NOC from Revenue Department for dispensing HSD, Rail Transport Clearance from Ministry of Railways, Customs Clearance for handling of Cargo, Appointment of Krishnapatnam Port as Conservator from GoAP etc., have already been obtained as part of Phase-I development. Further, clearances from the following statutory authorities have also been obtained. NSPC, ISPS, Coast Guards and NHO.		

26.	Project proponent shall install necessary oil spill mitigation measures in the shipyard. The details of the facilities provided shall be informed to this Ministry within 3 months from the date of receipt of this letter.	Complied. a) Oil Spill Contingency Response Plan is in place to cater to Tier -I spills. In pursuance, we have provided the following facilities. i) Spill response equipment and chemicals to handle Tier-1 Oil Spills ii) Shoreline cleaning equipment iii) A team of well trained professionals to handle Oil Spill Contingencies / emergencies with the coordination of Indian Coast Guard. b) Details were furnished to the MoEF&CC Regional Office, Bangalore, vide our letter no. KP/MoEF/PH-II/20 dated 2 nd February, 2010
27.	No hazardous chemicals shall be stored in the Coastal Regulation Zone area.	Complied. No hazardous chemicals are stored in CRZ area.
28.	The project shall not be commissioned till the requisite water supply and electricity to the project are provided by the PWD / Electricity Department.	Complied.
29.	Specific arrangements for rainwater harvesting shall be made in the project design and the rainwater so harvested shall be optimally utilized.	Complied. Rainwater harvesting pits are developed near buildings. For the general area, rainwater harvesting ponds are also developed at suitable locations.
30.	The facilities to be constructed in the CRZ area as part of this project shall be strictly in conformity with the provisions of the CRZ Notification, 1991 and its amendment. The facilities such as office building and residential buildings which do not require waterfront and foreshore facilities shall not be constructed within the Coastal Regulation Zone area.	Noted and being complied.
1. General Conditions:		
i.	Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction	Noted. Adequate provisions including water supply, and sanitation are ensured for construction workers.

	phase of the project to avoid any damage to the environment.	
ii.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Noted.
iii.	Borrow sites for each quarry sites for road construction material and dump sites must be identified keeping in view the following: (a). No excavation or dumping on private property is carried out without written consent of the owner.	Noted. No excavation or dumping on private property is being carried out.
	(b). No excavation or dumping shall be allowed on wetlands, forest areas or other ecologically valuable or sensitive locations.	Noted.
	(c). Excavation work shall be done in close consultation with the Soil Conservation and Watershed Development Agencies working in the area, and	Noted.
	(d). Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such materials must be secured so that they shall not leach into the groundwater.	Noted.
iv.	The construction material shall be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority shall be obtained in this regard.	Noted.
v.	Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.	Noted.
vi.	Full support shall be extended to the officers of this Ministry / Regional Office at Bangalore by the project proponent during inspection of the project for	Noted.

	monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation and other environmental protection activities.	
vii.	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if in the interest of environment and the same shall be complied with.	Noted.
viii.	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.
ix.	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 Forests.	Noted.
x.	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. These details were furnished to the MoEF&CC Regional Office, Bangalore, vide our letter no. KP/MoEF/PH-II/20 dated 2nd February, 2010. Financial Closure: 17.03.2009 Approval of the Project by GoAP: 04.08.2009 Start of land development work: 11.08.2009
xi.	Andhra Pradesh 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.
7.	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	Noted.

	Notification 1994, including the amendments and rules made thereafter.	
8.	All other statutory clearances 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 project proponents from the respective competent authorities.	Complied. Statutory clearances are obtained for storage of Diesel from Chief Controller of Explosives (CCE), Fire Department, Civil Aviation Department, and Forest Conservation Act.
9.	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 Andhra Pradesh State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bangalore.	Complied. Advertisement was given in Two Local Newspapers namely Deccan Chronicle dated 22.11.2009 and Andhra Jyothi dated 22.11.2009. A copy of the advertisement was sent to Regional Office, Bangalore of MoEF vide our Letter No.KP/MOEF/PH.II/08 dated 18.01.2009.
10.	Environmental Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.	Noted.
11.	Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.	Noted.

12.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / 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.	Complied.
13.	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. The criteria pollutant levels namely; SPM, RSPM, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the Company in the public domain.	Complied. a) Periodic monitoring of various parameters is being carried out by an agency accredited by NABL and approved by MoEF&CC. The results of monitoring comply with the norms. Results of periodic monitoring are being regularly submitted to statutory authorities. b) EMP as per the EIA report is being implemented. c) Environmental Information is being displayed on the port website. d) Six monthly Environmental Monitoring Reports are being submitted to Ministry and APPCB. Same is enclosed as Annexure-1 . e) Ambient Air Quality Parameters are being displayed at the main office.
14.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Complied. Six Monthly compliance report of EC Conditions for the period April 2020 to September 2020 was submitted to Regional Office of MoEF&CC and APPCB vide our letter dated.27.11.2020.
15.	The environmental statement for each financial year ending 31 st 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	Complied. Report for the previous year (FY 2019-20) was submitted to the APPCB vide letter No. KPCL/MIS(A)-APPCB/EHS/282-2020 dated 28.09.2020.

	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.	
Specific Conditions vide MoEF&CC order F.No. 11-62/2009-IA.III (Pt) dated 16.03.2016		
i	Construction activity shall be carried out strictly according to the provision of CRZ notification, 2011. No construction work other than those permitted in coastal Regulation Zone Notification shall be carried out in Coastal regulation Zone area.	Complied.
ii	All the recommendations and conditions specified by AP Coastal Zone Management Authority (APCZMA) vide letter no.3160/Env/CZMA/2014 dated 14.08.2014 shall be complied with.	Complied.
	Recommendations and Conditions of the APCZMA dated 14.08.2014.	
	1. The proposed constructions in the Deep Water Port at Krishnapatnam in SPSR Nellore District shall confirm to norms prescribed in CRZ Notification, 2011 issued by the Ministry of Environment and Forests, Government of India	Noted
	2. Mining of sand, rock and other substrata material is strictly prohibited, except for the activities permitted under CRZ notification, 2011. No dressing or altering of sand dunes, hills, natural features within the area covered under Coastal regulation Zone. Approved stone quarries shall be identified for extraction of stones and boulders for the construction of roads.	Noted
	3. Harvesting or drawl of ground water within the CRZ area should not be resorted either for construction or during the operational phase of the port within the CRZ area.	Noted

	4. Green belt shall be developed all along the land boundary of the proposed project site to act as wind breaks. The treated waste water from the Sewage Treatment Plant shall be utilized for raising the green belt.	Complied.
	5. Mangrove plantations existing in the Port area shall be maintained and protected. There is about 85 Ha of mangrove plantations existing in the port area. Suitable areas may be identified for planting the mangroves. Wherever, mangroves are planted in the vicinity (Private / Government lands), necessary protection shall be extended.	Complied.
	6. Shore protection measures shall be undertaken to prevent erosion of shoreline based on studies conducted by reputed national agency (INCOIS).	Complied a) From the INCOIS report for the period October 2008 to January, 2010, the coastline is found to be stable. b) Shoreline monitoring further carried out in-house also revealed that the coastline is unaffected except for seasonal variations. c) Though the shoreline is stable, still shore protection measures like green cover (casuarina plantation) along the beach is developed.
	7. Necessary measures shall be taken to prevent the pollution of waters in the creek and Buckingham Canal on account of construction of new structures.	Complied
	8. Neither dumping of solid waste in the creeks / BC Canal nor filling up of the creeks are permitted. The debris shall be transported and disposed at a designated disposal site authorized by APPCB.	Complied.
	9. There shall be no obstruction to ensure the free flow of water in both directions in the creeks and Buckingham Canal to prevent flooding of upper catchment during rainy season.	Noted

	10. The port management shall make fresh reference, in case the proposed operations extend beyond the designated area.	Noted
	11. All the conditions stipulated in the NOC issued through Letter No. 7401/CZMA/2012, dated 02.02.2013 shall be implemented. Full cooperation shall be extended to all inspecting authorities / organizations such as APPCB, CPCB and local Environment Protection organizations etc.	Noted and Complied.
	Recommendations and Conditions of the APCZMA dated 02.02.2013	
	1. Necessary permission shall be obtained from Government / Director of Ports to develop the infrastructure facilities and copies of such permissions shall be submitted for records.	Noted.
	2. Permission from inland water transport (IWT) Wing of State irrigation Department shall be obtained to undertake new constructions and also for taking up any modifications of the existing structures on the Buckingham Canal.	Noted.
	3. Dredged material shall be utilized for reclamation of land purpose of the port hinterland area subject to the suitability of dredged spoils. The disposal of balance sediment material into sea be undertaken as per the EIA report.	Complied.
	4. The project proponent shall submit the compliance report to the Government before commissioning the port and related facilities	Noted.
	5. Full cooperation shall be extended to all inspecting authorities / organizations such as APPCB, CPCB and local	Noted.

	Environment Protection organizations etc.	
iii	Automatic/online monitoring system (24x7 monitoring devices) for air pollution as well as water pollution in respect of flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the Company's website.	Complied. Three continuous AAQM stations are installed and commissioned in the port area and linked to APPCB web site. Analysis of treated wastewater from STP is carried out by NABL approved agency; reports are being submitted to APPCB.
iv	All the recommendations mentioned in rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.	Noted.

Compliance Report on Conditions Stipulated in the

Environmental and CRZ clearance For Phase-III

Development of Krishnapatnam Port

Period: October 2020 to March 2021

Adani Krishnapatnam Port obtained **No Objection Certificate for CRZ** from APCZMA and MoEF&CC granted **Environment & CRZ clearance** for the "Expansion of Krishnapatnam Port (Phase-III)", the project comprises of 16 berths including 3 jetties for liquid cargo and 3 SBMs in deep waters to cater to 150.2 MTPA of various types of cargo and 1.1 MTEUsPA of container cargo with dredging of 60 Million cum. AKPL obtained Consent For Establishment (CFE) from APPCB vide order No. 633/APPCB/CFE/RO-NLR/HO/2010 dated 25.02.2021. Phase-III expansion works initiated with dredging for construction of liquid jetty at lee side of the north breakwater.

**Compliance report on conditions of Environmental & CRZ
Clearance for Adani Krishnapatnam Port for Phase – III
MoEF&CC Order dated 11.01.2021 Period of Report "October
2020 to March 2021"**

S. No.	Condition	Compliance Status
A. Specific Conditions:		
(i)	The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals / clearances under any other Acts/ Regulations or Statutes as applicable to the project.	Noted.
(ii)	The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC.	Noted. All the recommendations in the Environment Management Plan of the Environmental Impact Assessment report will be implemented. As part of Phase-I & II, AKPL is conducting Environmental Monitoring covering the following attributes Air, Noise, Marine water, Sediment, Turbidity at deep sea, STP water quality, Soil, Ground water, Surface water, DG set on regular basis, the results of the analysis were found to be well within the permissible limits. The six monthly

		environmental monitoring from Oct 2020 to Mar 2021 is attached as Annexure-1.
(iii)	Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Noted and being Complied. All the construction works are being carried out as per the CRZ Notification, 2011. Only permitted activities in CRZ area are being carried out.
(iv)	All the recommendations and conditions specified by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter 202/CRZ/IND/201930 dated 21.05.2020 shall be complied with.	Noted and being Complied
(v)	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase	Noted and Being complied. Creek water monitoring shall be implemented during the construction phase to ensure the free flow of water.
(vi)	Development of green belt by native species with consultation with state forest department shall be ensured.	Noted. Port has developed 191.5 Ha. Of greenbelt including boundary plantation, avenue plantation and plantation in the storage areas. Greenbelt developed in the Port so far is of only native species, all the saplings for the greenbelt development is being developed in-house in the nursery by collecting seeds, stem cutting etc., and purchased from the district forest department. Same shall be followed for Phase III greenbelt.
(vii)	The proposed expansion entails 60 million cum of dredging in soft soil. As proposed, the PP shall utilize 26 million cu m of dredged sand for reclamation of low lying areas of port, stock pile 2 million cu m on the coast north of north breakwater for long term coastal protection as recommended by NIOT and disposal of balance 32 million cu m of	Noted. APPCB issued Consent for Establishment (CFE) vide their order No. 633/APPCB/CFE/RO-NLR/HO/2010 dated 25.02.2021. Dredging works for construction of liquid jetty at the lee side of the North breakwater has been started after obtaining CFE from APPCB. The impact of dredging activities will be

	dredged spoil in the identified dredge disposal area of 56 Km ² beyond (-) 20 m contour. The impact of dredging on the marine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. NIOT will oversee the work as scientific body and continue to monitor its impact/benefits for at least 5 years post project completion. Necessary financial assistance to be provided by project proponent to NIOT. The report of the same to be submitted to regional office of MoEFCC by project proponent.	monitored by engaging NIOT as scientific body.
viii)	Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit with the help of reputed organization or individuals of national repute having knowledge in the said subject. Necessary financial assistance to be provided by project proponent	Noted. Periodical Environmental monitoring is being carried out in Krishnapatnam Port by NABL accredited Laboratory which includes Biological parameters Primary productivity, Chlorophyll, Phytoplankton, Zooplankton in marine water, Benthos communities (Macro benthos, Epifauna, infauna) in Marine sediment. The report of the Environmental monitoring is being submitted to the APPCB regularly. In addition, NCSCM is engaged in annual Environmental Monitoring once in four years to carry out monitoring of various parameters covering, Land, Air quality, Noise, Water, Marine, Marine sediment and mangroves.
(ix)	Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance reports to the regional office of MoEF&CC.	Noted. 03 Nos. Continuous Ambient Air quality monitoring stations have been installed and connected to APPCB which are located at the periphery of the Villages Gopalapuram, Thamminapatnam and Krishnapatnam.
(x)	The actions shall be in accordance with proposed landscape planning concepts to minimize major landscape changes. The change in land use pattern shall be limited to	Noted. All the developmental activities will be as per the Phase-III layout and proper surface drainage system along with storm water network shall be provided

	the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network.	so as to ensure proper drainage in the project area.
(xi)	Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling.	Noted Port has existing Tier-I oil spill response equipment to combat any oil spill and coordinate with Indian Coast Guard to contain, control and recover the accidental spills of fuel during cargo handling.
(xii)	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report.	Noted. Environmental Monitoring Plan is prepared in matrix format for the Phase-III expansion. Attached as Annexure-2.
xiii)	The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.	Noted. Krishnapatnam Port implemented Corporate Social Responsibility over the years by providing facilities for Education, Skill development and employment, Health & welfare, Community development, women empowerment etc., Krishnapatnam Port will augment the existing CSR activities for the proposed project.
xiv)	As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30 th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV,	Noted. Public hearing for Phase-III expansion was waived as it is being developed in the existing land area of 6800 Ac. All the commitments made in the public hearing for Phase-II during 2009 are being complied. All the activities proposed in the Environment Management Plan for Phase-III along with the existing EMP including Pollution control measures, Environmental protection and conservation, R&R, Wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation, if any., as prescribed shall be implemented.

	Compensatory Afforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.	
B. Standard Conditions:		
	6. Statutory Compliance:	
i.	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.	Noted and being Complied. Only permitted construction works in CRZ area are being carried out as per the provisions of CRZ Notification, 2011. As per the Concession Agreement, GoAP shall provide power supply from the nearest substation as per the request of the company.
i.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted and being complied. Krishnapatnam Port has obtained license from Chief Controller of Explosives to store petroleum class A & B as a retail outlet inside the Port which is valid up to 31.12.2021. Attached as Annexure-3
	7. Air quality monitoring and preservation:	
i.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and Nox in reference to SO2 and Nox emissions) within and outside	Noted. Environmental Monitoring is being carried out by NABL accredited laboratory. Ambient Air Quality for the entire Port area and outside the port area at 7 locations is being monitored covering upwind and downwind directions.

	the project area at least at four locations covering upwind and downwind directions.	Commissioned 3 no's CAAQM Equipment's in the port & linked to APPCB website. As Phase-III is being developed in the existing Port area, the same shall be continued.
ii.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.	Noted. In the Port operation area, Port has deployed mechanical road sweeping machines for roads, 248 nos. of sprinklers system, 13 nos. of atomizers and 10 nos. mobile water tankers for coal storage yards for dust suppression measures, wind screen towards Krishnapatnam village & Godown with 12 m height to act as dust barrier towards Chalivendram village. All the existing measures shall be augmented as per the requirement and implementation of new technologies to control air pollution shall be explored for dust control in the Port.
iii.	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.	Noted. Shrouding shall be used in the work site to enclose and act as dust curtain. Wind screens are erected in the Port to minimize the dust spread to the nearby village.
iv.	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.	Noted
v.	The Vessels shall comply the emission norms prescribed from time to time.	Noted. All the vessels calling at Krishnapatnam Port shall be verified to comply with the MARPOL regulations as prescribed from time to time.

vi.	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low Sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.	Noted All the DG sets at construction area shall be provided with acoustic enclosures and conforms to the rules made under the Environment (Protection) Act, 1986 like DG height, Fuel using low sulphur diesel and emission as per the prescribed norms.
vii.	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.	Noted. A detailed Traffic Management & Traffic decongestion Plan was prepared as part of Cumulative Impact Assessment for the study area covering 20 Kms and submitted to the EAC committee as Annexure to Environmental Impact Assessment. The report and recommendations shall be submitted to the concerned authorities for road augmentation and implementation of recommendations in the Plan.
	8. Water quality monitoring and preservation:	
i.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.	Noted. Creek water monitoring shall be implemented during the construction activities on/near the creek to ensure the free flow of water.

ii.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.	Noted. Appropriate measures shall be taken while undertaking digging activities to avoid any likely degradation of water quality. Dredging is planned in phased manner and Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
iii.	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.	Noted. No ships will be allowed to discharge its on board waste water. However, Port collects garbage, oil waste, sludge etc., through Port reception facility from the Vessel and dispose through authorized recyclers.
iv.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.	Noted. Port has existing Tier-I oil spill response equipment to combat any oil spill supported by Indian Coast Guard to contain, control and recover the oil spill.
v.	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.	Noted Not applicable, as there is no intake and outfall proposed in the project.
vi.	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.	Noted <ul style="list-style-type: none"> Port is equipped with Tier-I, oil spill response equipment to combat spillage of oil, supported by Indian Coast Guard. Oil Spills, if any at construction area, shall be managed as per the Oil Spill Contingency Plan. We have Procured Oil Boom, Skimmer and chemicals. Trainings and periodical mock drills are being organized for the work force at work place As per Disaster Management Plan, Indian Coast Guard will be alerted to Coordinate.

vii.	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.	Noted. Port has necessary approvals to withdraw 4MLD of water from Nakalakalva Irrigation drain and 1 MLD from Muthukur tank, which will meet the total fresh water requirement of the Port.
viii.	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.	Noted. Sewage Treatment Plant of 300KLD capacity (Fluidized Bed Bio Reactor technology) is under operation as part of Phase-I & II. The treated effluent from the STP is being used for greenbelt development and dust suppression. STP for proposed Phase-III expansion shall be provided as and when required.
ix.	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.	Noted. The treated domestic effluent shall be utilized for greenbelt development and dust suppression. Obtained CFE for Phase-III expansion vide their letter no. 633/APPCB/CFE/RO-NLR/HO/2010 dated 25.02.2021.
x.	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.	Noted. The project does not involve any diversion of the natural course of the river.
xi.	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.	Noted. Port shall stockpile 2 Million Cu.m of dredged material as erosion control measure at the shore north of north breakwater as recommended by NIOT. This will act as long term protection of shore.
	1. Noise monitoring and prevention:	
i.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Noted. AKPL engaged NABL accredited Environmental monitoring agency to monitor Noise quality for Phase-I&II and the values are well within the limits of CPCB standard. The monthly analysis reports are being submitted to APPCB, Regional office and half yearly report along with six monthly compliance reports to Regional Office, MoEF&CC and APPCB. The same shall be continued as the proposed project

		is located within the existing Port boundary.
ii.	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment.	Noted and being complied. Noise levels are regularly being monitored and they comply to standards at construction site. All the DG sets are provided with acoustic enclosures and all other equipment & machineries are given periodic maintenance.
iii.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.	Noted. All the DG sets are provided with acoustic enclosures and all other equipment & machineries are given periodic maintenance. Ear plugs will be provided along with PPE to all the workmen working in noise generating area.
iv.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Complied. AKPL engaged NABL accredited Environmental monitoring agency to monitor Noise quality for Phase-I&II and the values are well within the limit of CPCB standard. The noise levels are being monitored at 7 locations.
	2. Energy Conservation measures:	
i.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;	Noted. During planning stage of the building constructions, possibilities for provision of roof top solar power systems shall be explored.
ii.	Provide LED lights in their offices and port areas.	Noted. All the office buildings and other operation buildings are provided with LED lights, same shall be implemented in Phase-III expansion also.
	3. Waste management:	
i.	Dredged material shall be disposed safely in the designated areas.	Noted. Dredged material shall be used for reclamation of low lying areas and the remaining material shall be disposed off in the designated disposal site beyond -20m contour identified by NIOT,
ii.	Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried	Noted. The study on shoreline changes due to dumping of dredged material shall be monitored during stockpiling of 2

	out, if necessary. The details shall be submitted along with the six monthly monitoring reports.	million m.cum dredged material on the north of north breakwater. The report shall be submitted along with six monthly monitoring report.
iii.	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.	Noted and being complied. Port has existing 300 KLD sewage Treatment Plant to treat waste water from domestic usage, the treated effluent conforms to the standards laid by CPCB and the solid waste generated in the Port is collected, segregated, stored and disposed as per the Solid Waste Management Rules, 2016 and Environment (Protection) Act, 1986. The same shall be implemented for the Phase-III expansion works.
iv.	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.	Noted and being complied. Solid waste generated in the Port and in the construction site is collected, segregated, stored and disposed as per the Solid Waste Management Rules, 2016 and Environment (Protection) Act, 1986. The same will be implemented for the Phase-III expansion works.
v.	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.	Noted. Construction waste shall be used for levelling and site development works, no demolition works, all the waste generated from Construction and Demolition works will conform to the Construction and Demolition Waste Management Rules, 2016.
vi.	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.	Noted.
vii.	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.	Noted. Port replaced all the CFLs and TFLs with LED lights. Used CFLs and TFLs if any, will be disposed off for recycling as per the rules of the regulatory authority.

viii.	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.	Noted. Port has existing Oil Spill Contingency Plan in place for the existing and proposed project. Port has Tier-I Oil Spill response equipment for recovery of oil spill in coordination with ICG, Krishnapatnam and follows the guidelines given in MARPOL and Shipping Acts.
	4. Green Belt:	
i.	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.	Noted. A total of 191.5 Ha. greenbelt has been developed so far in the Port as part of Phase-I & II development with native species. In Phase-III, it is proposed to develop 120 Ha. greenbelt along the Port boundary and around the coal storage areas with native species in accordance with CPCB guidelines
ii.	Top soil shall be separately stored and used in the development of green belt.	Noted
	5. Marine Ecology:	
i.	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.	Noted. Dredging is planned in phased manner so that the turbidity developed will get dispersed preventing stress on fish population.
ii.	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.	Noted. Dredging works for construction of liquid jetty at the lee side of the North breakwater has been started after obtaining CFE from APPCB vide their letter dated 25.02.2021. The impact of dredging activities will be monitored by engaging NIOT as scientific body.
iii.	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and	Noted.

	submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.	
iv.	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.	Noted
v.	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.	Noted. There are no aquatic wildlife sanctuaries in the vicinity of the Port. However, it is ensured that the water traffic does not impact the marine ecosystem.
	6. Public hearing and human health issues:	
i.	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.	Noted. International standard for Occupational health and safety will be maintained in the work space to prevent any undesirable environmental pollutants.
ii.	Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear	Noted. Adani Krishnapatnam Port strictly enforcing all the workers, employees,

	muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.	stakeholders to wear PPEs in the operational areas.
iii.	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.	Noted. All the employees, workers & contractors are given daily tool box talks, monthly review meetings with employees engaged in various activities of the Port. Port implemented and monitoring all standard safety and occupational hazard measures to prevent untoward incidents.
iv.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Noted. Port has developed Emergency Preparedness Plan and Disaster Management Plan for the existing facilities. For Phase-III, Emergency Preparedness Plan and DMP will be prepared and implemented as per the proposed facilities.
v.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Noted. The construction workers are provided with temporary housing structures with necessary infrastructure and medical health care.
vi.	Occupational health surveillance of the workers shall be done on a regular basis.	Noted.
	7. Environment Responsibility:	
i.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into	Noted and being complied.

	focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	
ii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.	Noted and being complied. Adani Krishnapatnam Port has formed Environment Cell headed by Associate GM reports to Chief Operating Officer (COO) and Environment cell with qualified personnel formed at corporate level as well.
iii.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.	Noted
iv.	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out. 8. Miscellaneous:	Noted.
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in	Complied Advertisement was published in District Newspapers namely "Vartha" in local language & "The New Indian Express" in English dated 21.01.2021.

	two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	A copy of the advertisement is enclosed as Annexure-4
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied. A copy of the Environmental clearance is submitted to the District Collector vide our letter dated 03.02.2021 and local panchayats vide letter dated 01.02.2021. The copies of letters attached as Annexure-5
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Noted and being complied. The status of compliance of the stipulated Environment Clearance conditions along with six monthly monitoring report will be uploaded up on submission of the same to the Regional office, MoEF&CC, Chennai.
iv.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Noted
v.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Complied. Report for the previous year (FY 2019-20) was submitted to the APPCB vide letter No. KPCL/MIS(A)-APPCB/EHS/282-2020 dated 28.09.2020.
vi.	The criteria pollutant levels namely; PM2.5, PM10, SO2, Nox (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied. As per the directions and sign board format of APPCB, a sign board is placed at the main gate of the company. Regularly sign board is being updated with details of effluent discharge quality, air emission levels and CFO order no. & its validity of CFO.

vii.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Noted. The project is being funded in-house. Obtained CFE for Phase-III expansion vide their letter no. 633/APPCEB/CFE/RO-NLR/HO/2010 dated 25.02.2021.
viii.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Noted
ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Agreed. Public hearing exempted for the Phase-III expansion project. All the recommendations by the EAC committee, EIA/EMP shall be implemented.
x.	No further expansion or modifications in the port area shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Noted
xi.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted
xii.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
xiii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted
xiv.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full	Noted

	cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	
xv.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Noted
xvi.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted
APCZMA – NOC vide letter no.202/CRZ/IND/2019-30 dated 21.05.2020		
Part A: Specific Conditions:		
i	The project proponent shall comply with all the conditions stipulated in the Environment & CRZ clearances, CFEs, CFOs issued to M/s. KPCL Phase-I and Phase-II projects in this Phase-III project also	Noted and being complied. Krishnapatnam Port strictly complies to all the conditions stipulated in the EC, CFE & CFO of both Phase-I & II projects and continue to comply the same for the Phase-III expansion project also.
ii	The proposed constructions shall conform to the norms prescribed in CRZ notification issued by the Ministry of Environment and Forests, Government of India as per S. No. 19€, dated 06.01.2011.	Noted. All the construction activities will be carried out as per the CRZ notification, 2011.
iii	No activity on ground shall be undertaken without obtaining Environmental clearance from Ministry of Environment and Forests,	Noted MoEF&CC granted Environmental & CRZ clearance vide their letter no. 10-18/2016-IA.III dated 11.01.2021. Obtained CFE for Phase-III expansion

	Government of India as per S. No. 19(E), dated 06.01.2011.	vide their letter no. 633/APPCCB/CFE/RO-NLR/HO/2010 dated 25.02.2021. Dredging works initiated for constructing Liquid jetty at the Lee side of the North breakwater.
iv	Continuous monitoring of circulation of seawater shall be carried out every six months by engaging a reputed agencies like NIOT. The port shall undertake the study of multi sensor, multi date data to study the sedimentation studies in the inner harbour channel in addition to the in-house studies undertaken as part of regular monitoring of sedimentation in the harbour channel. The monthly reports shall be submitted to APPCB.	Noted
v	Study on marine biodiversity by engaging a reputed organization/ university having a proven expertise in the relevant field shall be taken up. Similar monitoring mechanism shall be developed for monitoring terrestrial part to determine the impacts.	Noted
vi	The Port authorities shall continue to nourish the beaches located on the north side of the North breakwaters within the port limits, which are vulnerable to sea erosion during the monsoon season and also during cyclone.	Noted. Dredging works for construction of liquid jetty at the lee side of the North breakwater has been started after obtaining CFE from APPCB vide their letter dated 25.02.2021. Beach nourishment with dredged material shall be carried out in Phased manner.
vii	The Port shall also undertake the scientific studies by engaging reputed agencies like National Institute of Ocean Technology (NIOT) and Indian Institute of Technology, Chennai to study the feasibility of constructing submerged breakwaters to protect the beach road from seasonal erosion and also during cyclones.	Noted. Port is not having beach roads to study the feasibility of constructing submerged breakwaters.
viii	The applicant shall ensure that continuous monitoring systems of all likely affected parameters including air/fish/flora/fauna/water	Noted. Port engaged NABL accredited and MoEF&CC approved Environmental monitoring laboratory to monitor

	quality/waste water discharges/solid waste disposal/construction material disposal etc., are installed and reports shared with the National Institute of Oceanography (NIO) on continuous basis and a monthly report submitted to the APPCB by the NIO, all through construction period and at least for one year after commencement of operations.	Environmental parameters: Ambient Air quality, Noise quality, Water, Marine water, Marine sediment, ground water, soil, STP water quality and DG set emission quality are being monitored regularly and the analysis reports are submitted to APPCB. Since Phase-III expansion is being developed in the existing Port area, the parameters will be revised if required and submitted to APPCB & NIO.
ix	A team of APPCB scientists and environmental engineers shall be kept continuously informed and apprised of the project by the applicant, so that environmental mitigation measures are adopted on a continuous basis.	Noted
x	The project proponent while executing this project shall not disturb any of the ecologically sensitive areas like mangroves, sand heaps, sand dunes etc.	Noted. No mangroves shall be destructed during construction activities of Phase-III.
xi	No construction shall be taken in the No Development Zone. However if any permitted activity is to be taken up, the proponent may apply to the competent authority separately. Permanent structures shall be avoided in this zone.	Noted. All the construction work shall be carried out in the notified port limit. Port is permitted for NDZ area as per the approved plan.
xii	Priority to be given to the maintenance of storm water drains from the surrounding area to prevent possible flooding of the surrounding areas.	Noted. Port started dredging works for constructing Liquid jetty at the Lee side of the North breakwater. Proper storm water drain system is planned for the construction area to prevent flooding.
xiii	Mechanization of Port operations shall be taken up to improve the air quality in the bowl area. SPM and RSPM levels to be maintained within the standards stipulated by the APPCB/CPCB.	Noted. Mechanized port operation is proposed in the Phase-III expansion.
xiv	Raising and maintenance of greenbelt within and outside the port area to be taken up on priority and necessary assistance shall be	Noted Shoreline plantation with native species like casuarina trees are

	extended to the local agencies involved in the implementation of afforestation programme.	carried out as part of 100m boundary plantation.
xv	The project proponent shall submit the half yearly compliance reports of CRZ clearance duly audited by the accredited consultants on the degree of compliance by the project proponent during and after construction of the project.	Noted
xvi	Dredged material shall be utilized for nourishment of beaches.	Noted. Dredging works for construction of liquid jetty at the lee side of the North breakwater has been started after obtaining CFE from APPCB vide their letter dated 25.02.2021. Beach nourishment with dredged material shall be carried out in Phased manner.
xvii	Full cooperation shall be extended to all inspecting authorities/organizations such as APPCB, MoEF&CC, CPCB and local Environment Protection Organizations.	Noted
xviii	A team of APPCB scientists and environmental engineers shall be kept continuously informed and apprised of the project by the applicant, so that environmental mitigation measures are adopted on a continuous basis.	Noted
xix	The project activity shall be carried out strictly as per the provisions of CRZ Notification, 2011, and shall not affect the coastal ecology of the area including flora and fauna.	Noted. All the construction activities shall be carried out as per the CRZ notification, 2011 without affecting the coastal ecology of the area.
xx	The project proponent shall ensure that there is no destruction of mangroves during the construction as well as the operation phase of the project.	Noted. No mangroves shall be destructed in Phase-III expansion works both during construction and operation phase.
xxi	There shall be no dressing or alteration of the sand dunes and natural features, including landscape changes for beautification, recreation and other such purpose.	Noted

xxii	All conditions/recommendations stipulated by other statutory authorities shall strictly be complied with, as may be applicable.	Noted
xxiii	The project proponent shall obtain all necessary clearances/permissions from the concerned authorities as applicable.	Noted. Obtained Petroleum Explosive License from PESO for construction and handling of liquid cargo dated 18.01.2021.
xxiv	'Consent for Establishment' and CFO as may be applicable, shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Noted Obtained CFE for Phase-III expansion vide their letter no. 633/APPCB/CFE/RO-NLR/HO/2010 dated 25.02.2021.
xxv	All waste (liquid and solid) arising from the proposed development will be disposed of as per the norms prescribed by State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea/coastal water bodies.	Noted. All the solid waste generated from the construction area are being collected, segregated and disposed as per the Solid Waste Management Rules, 2016.
xxvi	No permanent labour camp, machinery and material storage shall be allowed in CRZ area.	Noted. Temporary shelter for labours and material storage are provided in CRZ area, only during construction phase.
xxvi i	There shall no groundwater withdrawal within CRZ without prior approval of the State Groundwater Authority.	Noted. Port is not withdrawing groundwater in the CRZ area.
xxvi ii	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	Noted. Dredging works for construction of liquid jetty at the lee side of the North breakwater has been started. The dredged material will be used for reclamation of low lying land and beach nourishment at north of north breakwater as shoreline protection.
Part B: General Conditions		
i.	A copy of the clearance letter shall also be displayed on the website of the AP Pollution Control Board. The clearance letter shall also be displayed at the AP Pollution Control Board Regional Office, District Industries centre and	Complied. A copy of the Environmental clearance is submitted to the Environmental Engineer, APPCB Regional office vide our letter dated 12.01.2021, the District Collector vide our letter dated 03.02.2021 and local

	District Collector office/Mandal Revenue Office for 30 days.	panchayats vide letter dated 01.02.2021. The copies of letter attached as Annexure-5
i.	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Andhra Pradesh Coastal Zone Management Authority (APCZMA) and AP Pollution control Board Regional office.	Noted
ii.	Concealing factual data by the project proponent, any officer behalf of the project proponent and consultants hired by the project proponent or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted
iii.	The above stipulations would be enforced among others under the provisions of the 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, the EIA Notification, 2006 and the CRZ Notification, 2011.	Noted.
iv.	Full co-operation shall be extended to the officials from the APCZMA, APPCB and Regional office of MoEF&CC, during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to APCZMA shall be forwarded to the AP Pollution Control Board Regional office.	Noted

v.	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the APCZMA.	Noted
vi.	The APCZMA reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Noted
vii.	All other statutory clearances shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted.
viii.	The project proponent should 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 CRZ clearance and copies of clearance letters are available with the AP Pollution Control Board and may also be seen on the website of APCZMA. The advertisement should be made within seven days from the date of receipt of the clearance letter and a copy of the same should be forwarded to the AP Pollution Control Board Regional office.	Complied Advertisement was published in District Newspapers namely "Vartha" & "The New Indian Express" dated 21.01.2021. A copy of the advertisement was enclosed as Annexure-4
ix.	This clearance is subject to any order passed by any Hon'ble Courts, as may be applicable to this project.	Noted
x.	A copy of the clearance letter shall be sent by the proponent to 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.	Complied. A copy of the Environmental clearance is submitted to the Environmental Engineer, APPCB Regional office vide our letter dated 12.01.2021, the District Collector vide our letter dated 03.02.2021 and local panchayats vide letter dated 01.02.2021. The Environment & CRZ clearance letter is displayed in the

		Port website. The copies of letter attached as Annexure-5 .
xi.	The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the AP Pollution Control Board Regional office and, the concerned District Collector and the APPCB.	Noted. The status of compliance of the stipulated Environment Clearance conditions along with six monthly monitoring report will be uploaded in the website of the company up on submission of the same to the Regional office, MoEF&CC, Chennai, APPCB, Regional office.
xii.	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the Andhra Pradesh Pollution Control Board as prescribed under the Environmental (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of clearance conditions and shall also be sent to the AP Pollution Control Board regional office, APCZMA and APPCB by email.	Complied. Report for the previous year (FY 2019-20) was submitted to the APPCB vide letter No. KPCL/MIS(A)-APPCB/EHS/282-2020 dated 28.09.2020. The same is being uploaded in the company's website time to time along with the status of compliance of clearance conditions.

ADANI KRISHNAPATNAM PORT LIMITED



**ENVIRONMENTAL MONITORING REPORT
FOR THE PERIOD
OCT'20 to MAR'21**

CHAPTER – 1
INTRODUCTION

1.0 INTRODUCTION

Krishnapatnam Port is located at Krishnapatnam in Muthukuru Mandal, "Sri Potti Sri Ramulu" Nellore District, Andhra Pradesh on the East Coast of India at Latitude 14°15'10" N and Longitude 80° 08' 05" E on the Northern bank of Khandaleru (Upputeru). Krishnapatnam Port is situated at about 180 Km North of Chennai (Madras) Port.

The Environmental Clearance (EC) was accorded for the Phase – I development of this Port by the MoEF, Gol vide Ir no. 10-22/2005-IA-III dated: 26th July, 2006 and the CFE was accorded by the APPCB vide Order No. APPCB/VJA/NLR/633/HO/2004/9 - 467 dt. 25.05.2004. The Phase - I facility was commissioned during the year 2009.

For the Phase II development of this Port, the Environmental Clearance has been accorded by the MoEF, Gol vide F. No. 11 – 62 / 2009 – IA.III dated: 13th November, 2009 and MoEF&CC extended vide Oder even No. dated 18.08.2015 & 16.04.2018 and amended by MoEF&CC vide order dt 16.3.2016. The CFE accorded by the APPCB vide Order No. 633/PCB/CFE/RO-NLR/HO/2010-390 dt. 08.05.2010 is extended vide APPCB Order dt 02.07.2015 and amended vide APPCB's Orders dt. 14.03.2014, 02.07.2015, 10.02.2016, 04.01.2017 & 22.02.2018. The EC and CFE accorded for Phases I & II Development of Krishnapatnam Port caters to 17 berths and necessary infrastructure with a capacity to handle 72.3 MTPA of non-container cargo and 3.3 MTEUsPA of container cargo.

The CFO has been accorded by the APPCB vide Order No. APPCB/VSP/VJA/NLR/633/CFO/HO/2009-582 dt. 08.06.2009 and same is being periodically renewed. The APPCB has accorded latest CFO renewal Order, vide APPCB's Order No. APPCB/VJA/NLR/11344/CFO/HO/2018 dt. 29.07.2018 & 30.08.2018 which is valid till 31st October, 2023. Further, it is amended for additional one berth and increased coal cargo capacity from 46.5 MTPA to 51 MTPA. As of now, 12 berths out of 17 berths were constructed with necessary infrastructure with capacity to handle 68 MTPA of non-container cargo and 2.0 MTEUsPA of container cargo are commissioned and being operated.

Adani Ports and Special Economic Zone (APSEZ), a part of globally diversified Adani Group, the largest port developer and operator in India. APSEZ acquired KPCL from CVR Group and other investors and changed to Adani Krishnapatnam Port Limited (AKPL).

MoEF&CC granted Environment & CRZ clearance for the "Expansion of Krishnapatnam Port (Phase-III)" vide File No: 1018/2016-IA.III dated 11.01.2021, the project comprising of 16 berths including 3 jetties for liquid cargo and 3 SBMs in deep waters to cater 150.2 MTPA of various types of cargo and 1.1 MTEUsPA of container cargo with dredging of 60 Million cum. AKPL obtained CFE vide order no. 633/APPCB/CFE/RO-NLR/HO/2010 dated 25.02.2021.

The general Layout plan of the Krishnapatnam Port Phases I & II development is given in Figure-II.

The Environmental Management Plan (EMP) envisaged in the Environmental Impact Assessment (EIA) Report is being scrupulously implemented and augmented as needed. Monitoring of Environmental parameters viz., Ambient Air, Ambient Noise, Water Quality (Ground, Surface & Marine), Marine Ecology and Soil as envisaged is being undertaken regularly through an agency having NABL accreditation and approved by MoEF&CC. The results of monitoring comply with the statutory standards. Periodical Reports with results of monitoring thereof are being regularly submitted regularly to the APPCB and the MoEF&CC, RO as stipulated in the EC/CFE/CFO accorded.

1.1 SCOPE OF WORK

The scope of the baseline studies include monitoring of the following environmental components

1. Ambient Air Quality
2. Marine Water
3. Marine Sediment
4. Noise Level Intensity
5. STP Inlet & Outlet
6. DG Set Emission Quality
7. Ground Water Quality Monitoring
8. Soil Quality

The parameters covered under the scope for each of the above attributes are given below:

SCOPE OF WORK			
S.No	Attribute	Scope	Frequency
1.	Ambient Air Quality	Sampling of ambient air at 07 stations for analyzing the following parameters: <ul style="list-style-type: none"> • PM10 • PM2.5 • SO₂ • NO_x • NH₃ 	Monthly Once at each location
2.	Marine Water	Collected at four locations and analyzed the following parameters : <ul style="list-style-type: none"> • pH • Temperature • Salinity • Density • Turbidity • Total Dissolved solids • Total Suspended solids • Potassium 	Weekly Once at each location

		<ul style="list-style-type: none"> • COD • BOD • Oil & Grease • D.O • Nitrates • Nitrites • Ammonia • Phosphates • Chlorides • Sodium • Sulphates • Silicates • Reactive Silica • Total Phosphorus • Total Nitrogen • Primary Productivity • Chlorophyll • Phytoplankton • Zooplankton • Heavy Metals 	
3.	Marine Sediment	Collected at four locations and analyzed for <ul style="list-style-type: none"> • Sediment Compositions • pH • Nitrogen • Phosphorus • Potassium • Sodium • Benthos Communities • Heavy Metals 	Weekly Once at each location
4.	Noise Level Monitoring	Collected at seven locations <ul style="list-style-type: none"> • Day Leq in dB(A) • Night Leq in dB(A) 	Once in a month
5.	STP Inlet and Outlet	<ul style="list-style-type: none"> • pH • Total Solids • Total Suspended Solids • COD • BOD • Oil & Grease 	Once in a month
6.	DG Set Emission Quality	<ul style="list-style-type: none"> • PM • NOx • HC • CO 	Once in six months
7.	Ground Water Quality Monitoring	Collected at Four locations <ul style="list-style-type: none"> • pH 	Once in six months

		<ul style="list-style-type: none"> • Electrical Conductivity • Total Dissolved solids • Total alkalinity • Chlorides • Sodium • Potassium • Fluorides • Nitrates • Cyanide • Total Hardness • Salinity • Sulphates • COD • Mercury • Cadmium • Arsenic • Selenium • Iron • Lead • Zink • Chromium • Total Coliforms • Fecal coliforms 	
8.	Soil Quality Monitoring	Collected at Four locations <ul style="list-style-type: none"> • pH • EC • Texture • Available Nitrogen • Available Phosphorous • Available Potassium • Exchangeable Sodium • Exchangeable calcium • Exchangeable Magnesium • SAR • Water Soluble Chlorides • Organic Carbon • Lead • Cadmium • Copper • Zinc 	Once in six months

Figure:1

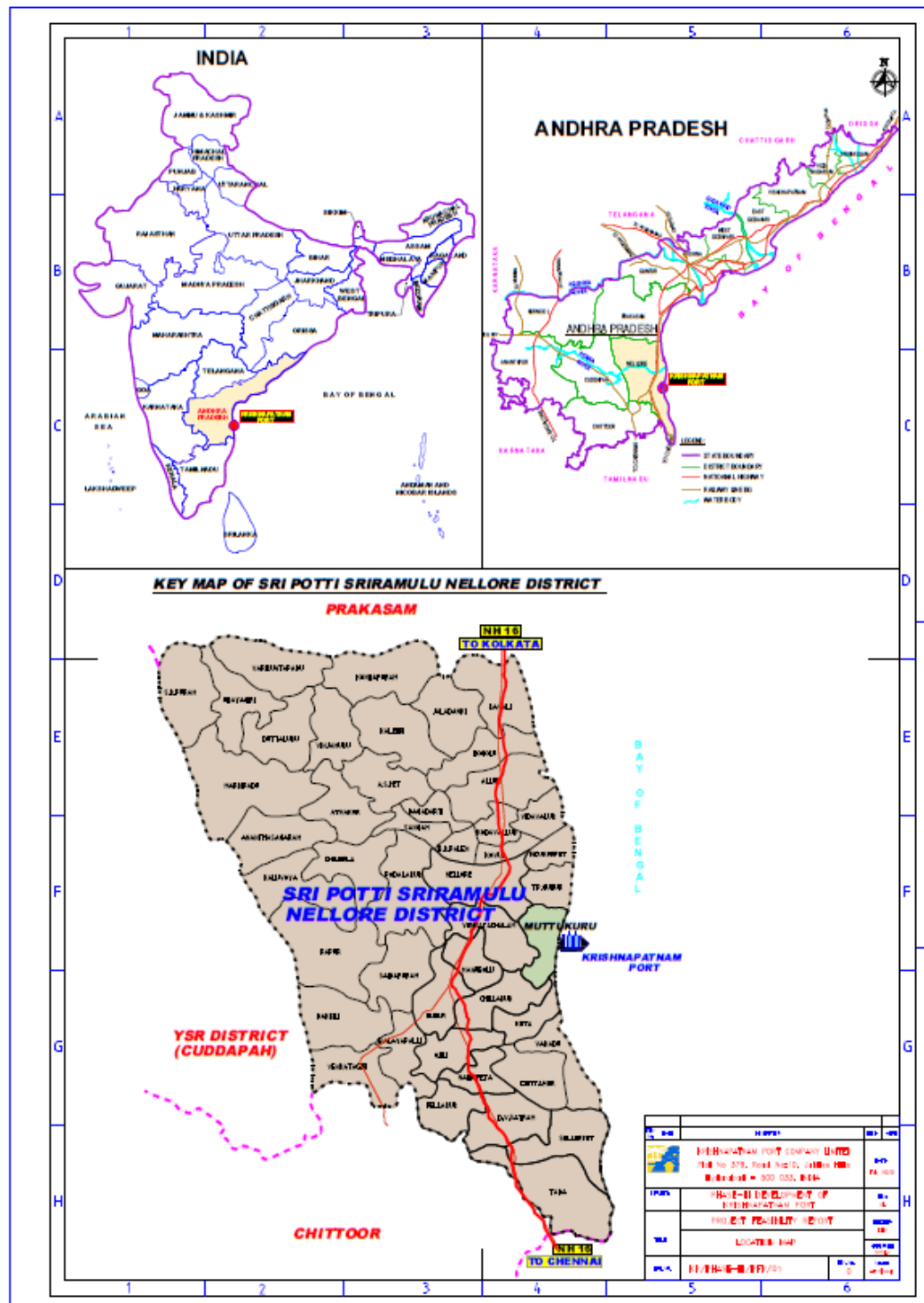
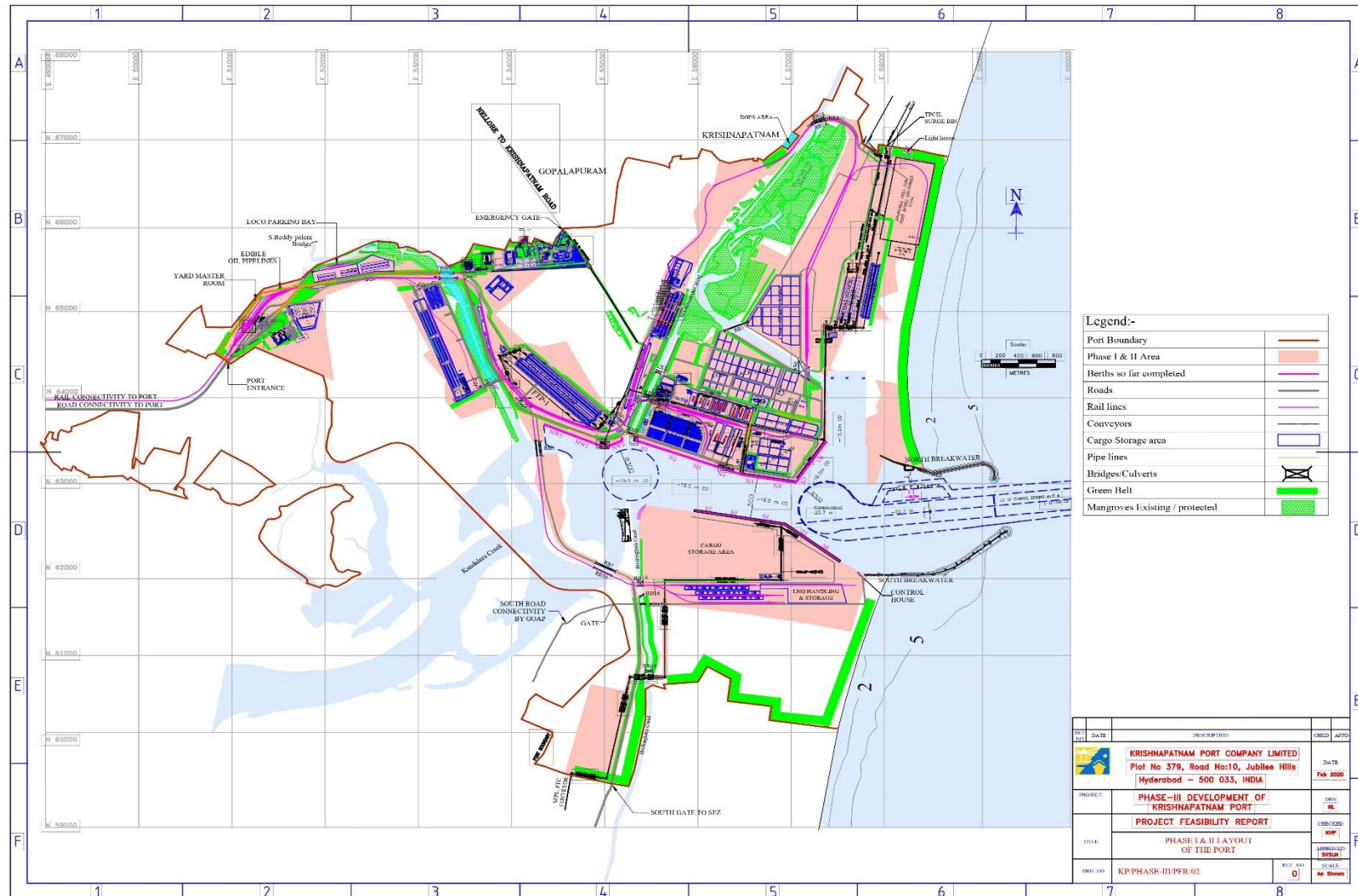


Figure:2



CHAPTER – 2
METHODOLOGY

2.0 METHODOLOGY

Methodologies adopted for sampling and analysis for each of the above parameters are detailed below

Methods of monitoring and analysis for various parameters

S.No	Attributes	Measurement Technique		
1.	Ambient Air Quality	PM ₁₀	Respirable Dust Sampler (Gravimetric method)	IS-5182 (Part-XXIII)
		PM _{2.5}	Fine Particulate Sampler (Gravimetric method)	IS-5182 (Part-XXIV)
		Sulphur dioxide	Modified West and Gaeke	IS-5182 (Part-II)
		Oxides of Nitrogen	Jacob & Hochheiser	IS-5182 (Part-VI)
		NH ₃	Indophenol Blue Method	-
2.	Marine Water	APHA Methods 23 rd Edition, 2017		
3.	Marine Sediment	ASTM Method		
4.	STP Inlet and Outlet	APHA Methods 23 rd Edition, 2017		
5.	Noise Level Intensity	Digital Noise Level Meter – SL Lutron 4001		
6.	DG Set Emission Quality	IS : 11255 Measurement of Emission from Stationary Sources		
7.	Ground Water Quality	APHA Methods 23 rd Edition, 2017		
8.	Soil Quality	IS:2720 & methods of soil analysis, part-1, 2 nd edition, 1986 (American Society for Agronomy and Soil Science Society of America).		

CHAPTER – 3

ENVIRONMENTAL MONITORING STUDIES

3.0 ENVIRONMENTAL MONITORING STUDIES – October'20 to Mar'2021

S.No	ATTRIBUTE	SCOPE	STUDIES CARRIED OUT
1.	Ambient Air Quality	Collection of ambient air at Seven locations in and outside of port premises	Ambient Air samples collected at 7 locations for PM10, PM2.5, SO2, NOx & NH3 (monthly once) for the period of 01.10.2020 to 31.03.2021.
2.	Marine Water and Surface Water Quality	Collection of Marine Water at six locations. <ul style="list-style-type: none"> • Port Entrance (Approach Channel) • Turning Circle • Coal Berth • Reclamation Area (Mutable) • Buckingham Canal • Khandaleru Creek 	Marine Water samples from Port Entrance, Turning Circle, Coal Berth and Reclamation Area are collection weekly once. Samples for Buckingham Canal and Khandaleru Creek are collected monthly once. All the samples are tested for Physical, Chemical and Microbiological parameters Collected for the period of 01.10.2020 to 31.03.2021.
3.	Marine Water Quality for Turbidity	Collection of Marine Water at seven locations. <ul style="list-style-type: none"> • Port Entrance (Approach Channel) • Turning Circle • Coal Berth • Reclamation Area (Mutable) • 14°19'26"N & 80°15'43"E • 14°16'52"N 	Marine Water samples from Port Entrance, Turning Circle, Coal Berth and Reclamation Area are collection weekly once. Deep Sea water Samples are collected monthly once. Collected for the period of 01.10.2020 to 31.03.2021.

		<p>80°17'40"E</p> <ul style="list-style-type: none"> • 14°16'11"N & 80°17'40"E 	
4.	Marine Sediment	<p>Collected at</p> <ul style="list-style-type: none"> • Port Entrance (Approach Channel) • Turning Circle • Coal Berth • Reclamation Area (Mutable) 	<p>Collected at four locations and analyzed for the hereunder weekly once.</p> <ul style="list-style-type: none"> • Sediment Compositions • pH • Nitrogen • Phosphorus • Potassium • Sodium • Benthos Communities • Heavy Metals <p>Collected for the period of 01.10.2020 to 31.03.2021.</p>
5.	Noise Level Intensity	<p>Noise levels were noted at</p> <p>Seven locations inside and outside port premises.</p>	<p>Day and Night Noise levels were noted at</p> <ul style="list-style-type: none"> • Zero Point • Thamminapatnam • CVR Building • Gopalpuram • Chalivendram • Krishnapatnam • Light House Siding <p>Collected Noise Levels at seven locations for day and night periods once in the month from 01.10.2020 to 31.03.2021.</p>

6.	DG Set Emission Quality	Emission Quality was conducted to DG Sets of port premises	Emission Quality was conducted to DG Sets of port premises, ie PM, NOx, HC & CO (Six months once) for the period of 01.10.2020 to 31.03.2021.
7.	Ground Water Quality Monitoring	Collected at <ul style="list-style-type: none"> • Port Site • Krishnapatnam village • South side of the port • Gopalapuram village 	Ground Water samples from Port site, Krishnapatnam village, South side of the port, Gopalapuram village Bore wells water samples are collected half yearly once. All the samples are tested for Physical, Chemical and Microbiological parameters Collected for the period of 01.10.2020 to 31.03.2021.
8.	STP Inlet and Outlet	Inlet and Outlet samples are collected from STP at Port	STP Inlet and Outlet samples are collected monthly once. Collected for the period of 01.10.2020 to 31.03.2021.
9.	Soil Quality	Collection of Soil sample at Two locations. <ul style="list-style-type: none"> • Storage area towards west Buckingham canal • Storage area at Port 	Soil samples from Storage area towards west, Storage area at Port Area are collection half yearly once. All the samples are tested for Physical, Chemical parameters. Collected for the period of 01.10.2020 to 31.03.2021.

3.1 AMBIENT AIR QUALITY MONITORING

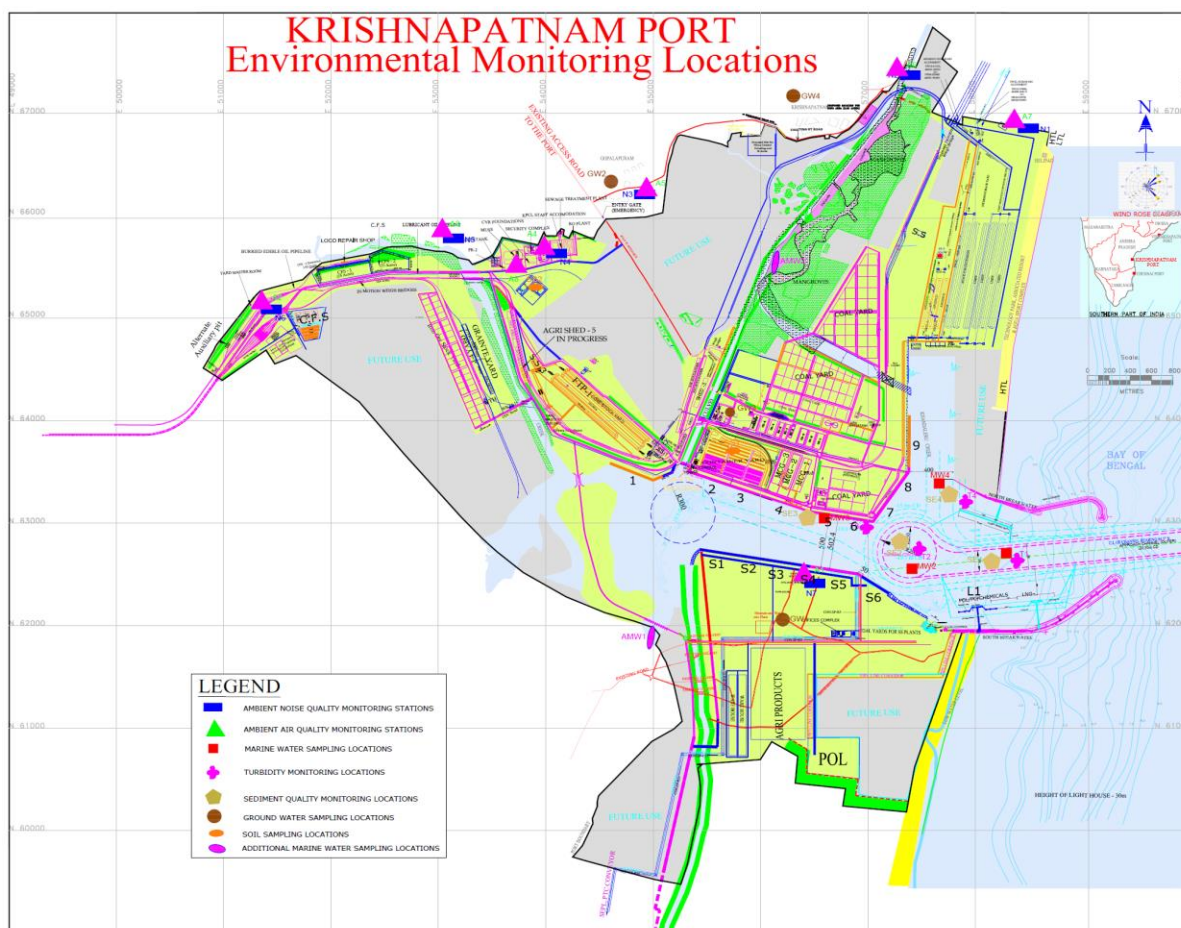
The ambient air quality was assessed through a network of 07 AAQM stations within 10 Km radius of project site (5 stations in buffer zone & 2 location inside plant area).

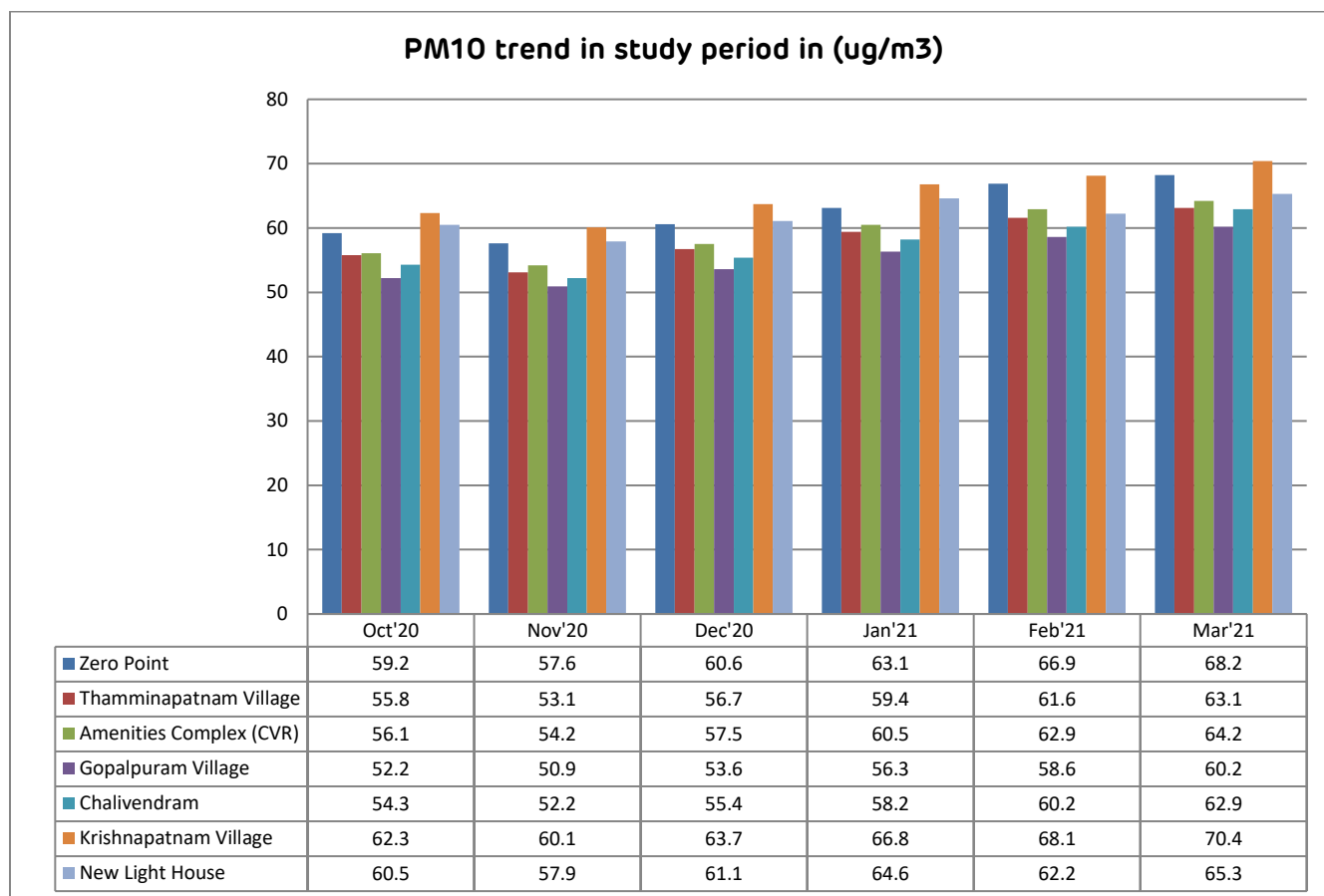
The locations of ambient air quality stations are shown in Fig – 3 is given below:

Table No- 2

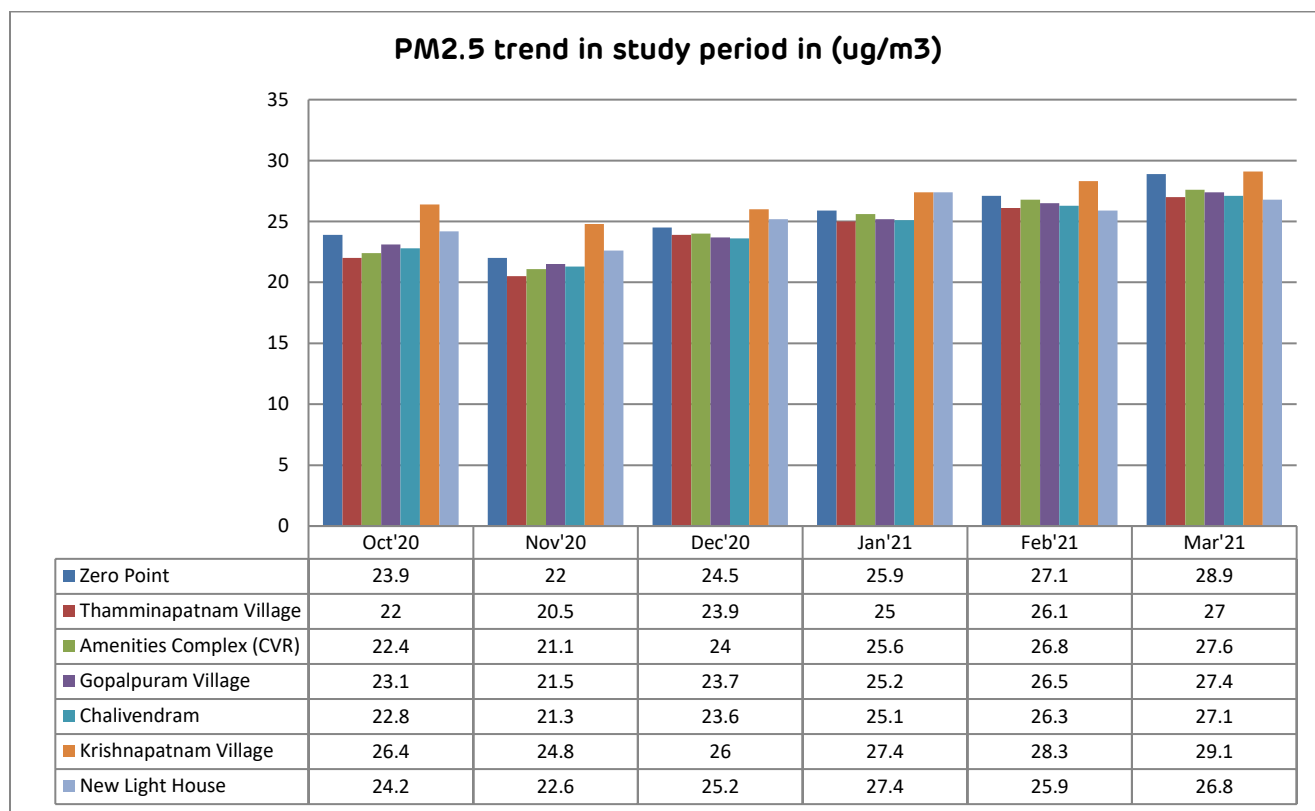
DETAILS OF AMBIENT AIR QUALITY MONITORING LOCATIONS

Station code	Location	Direction w.r.t. Project site	Environmental setting
A1	At Zero Point	W	Industrial
A2	At Thamminapatnam Village	S	Industrial
A3	At CVR Building	WNW	Residential
A4	At Gopalpuram Village	NW	Residential
A5	At Chalivendram	WNW	Residential
A6	At Krishnapatnam	NNW	Residential
A7	At Light House	SW	Residential

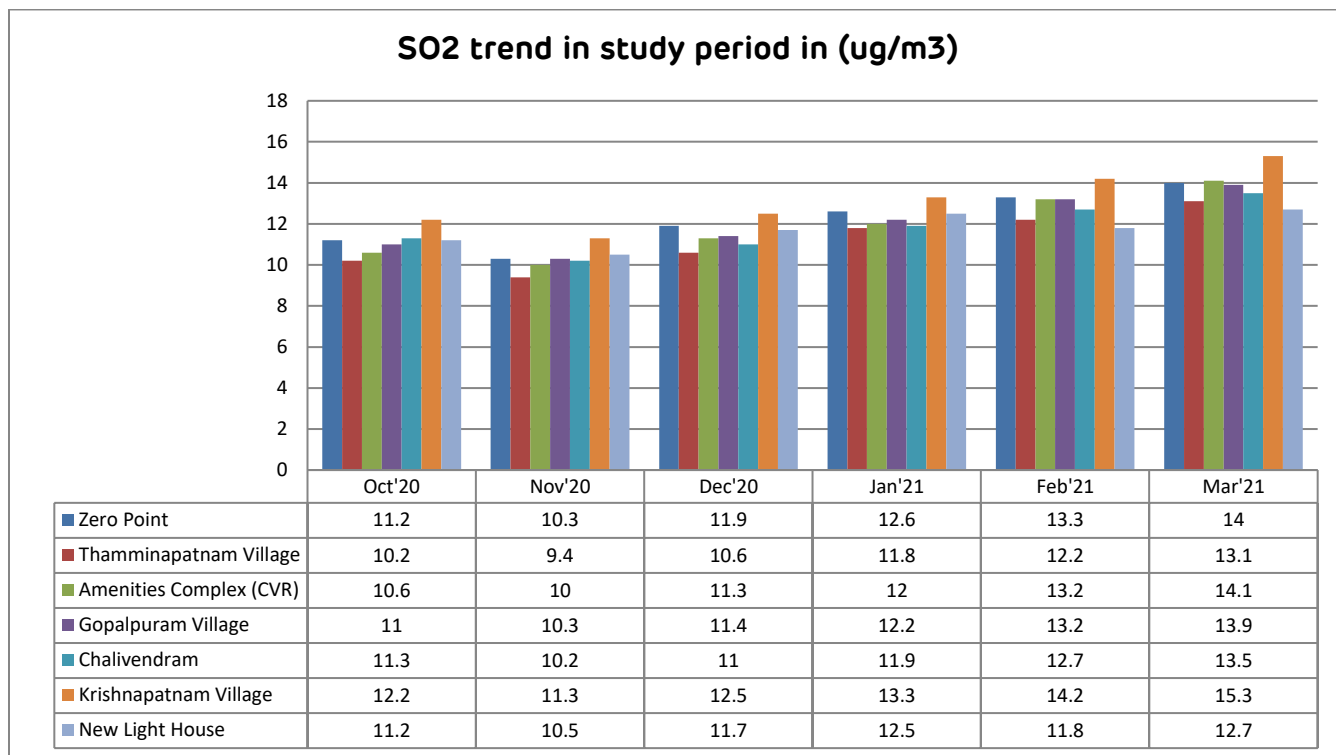
Fig 3. AMBIENT AIR SAMPLING STATIONS LOCATION MAP

Summary of Analysis of Ambient Air Quality in the Study Area – PM10 for Oct'20 to Mar'21

- ❖ PM10 varied between 50.9 to 70.4 $\mu\text{g}/\text{m}^3$ Minimum: Gopalpuram village
- ❖ Maximum: Krishnapatnam village, NAAQ Standard: $100\mu\text{g}/\text{m}^3$

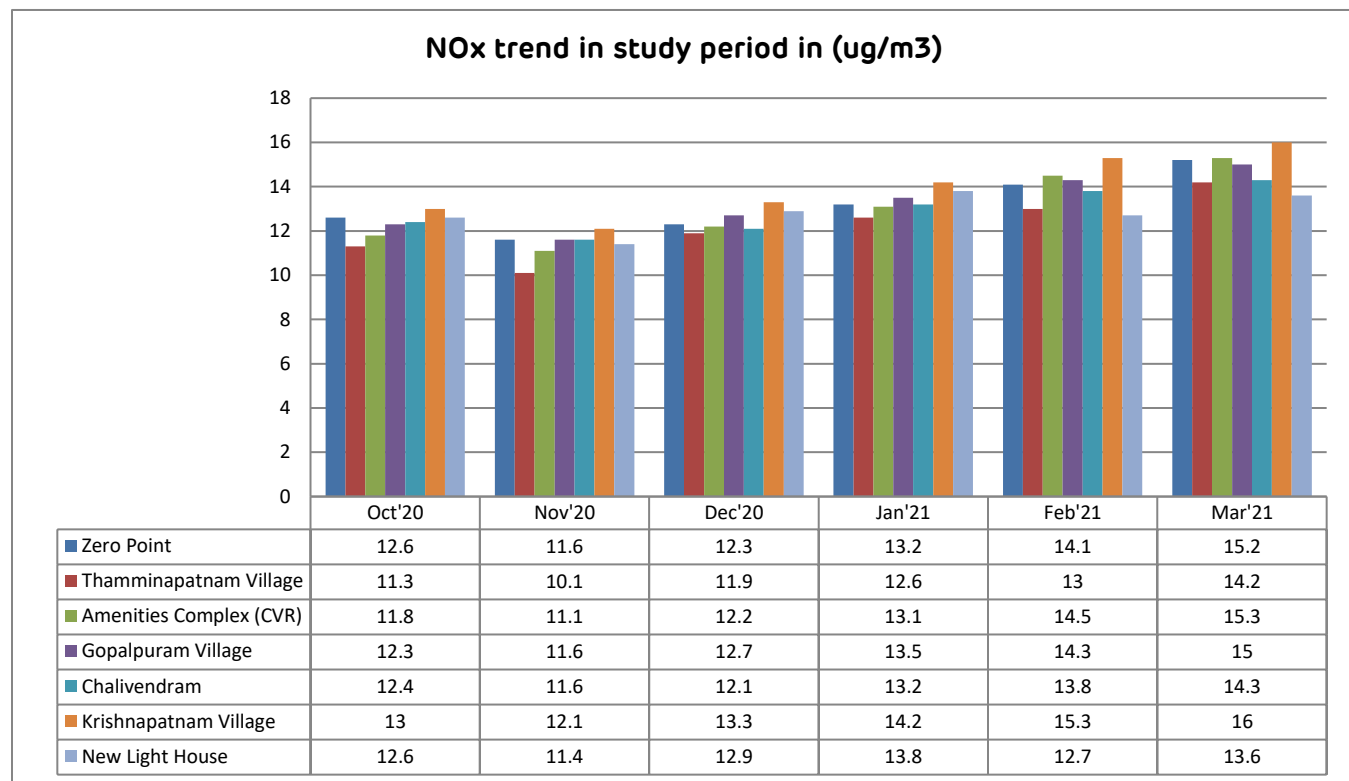
Summary of Analysis of Ambient Air Quality in the Study Area – PM_{2.5} for Oct'20 to Mar'21

- ❖ PM_{2.5} Varied between 20.5 to 29.1 µg/m³, Minimum: Thamminapatnam village
- ❖ Maximum ; Krishnapatnam village , NAAQ Standard : 60 µg/m³

Summary of Analysis of Ambient Air Quality in the Study Area – SO₂ for Oct'20 to Mar'21

- ❖ SO₂ Varied between 9.4 to 15.3 µg/m³. Minimum : Thamminapatnam village
- ❖ Maximum : Krishnapatnam village, NAAQ Standard : 80 µg/m³

Summary of Analysis of Ambient Air Quality in the Study Area – NO_x for Oct'20 to Mar'21



- ❖ NO_x Varied between 10.1 to 16.0 µg/m³, Minimum : Thamminapatnam village
- ❖ Maximum : Krishnapatnam village, NAAQ Standards : 80 µg/m³

3.2 AMBIENT NOISE LEVEL INTENSITY

Collection of ambient noise levels at six locations (5 locations at nearby villages & 1 location near plant). Spot noise levels were measured with a precalibrated Noise Level Meter – SL Lutron 4001 for day and night periods.

Table No-3

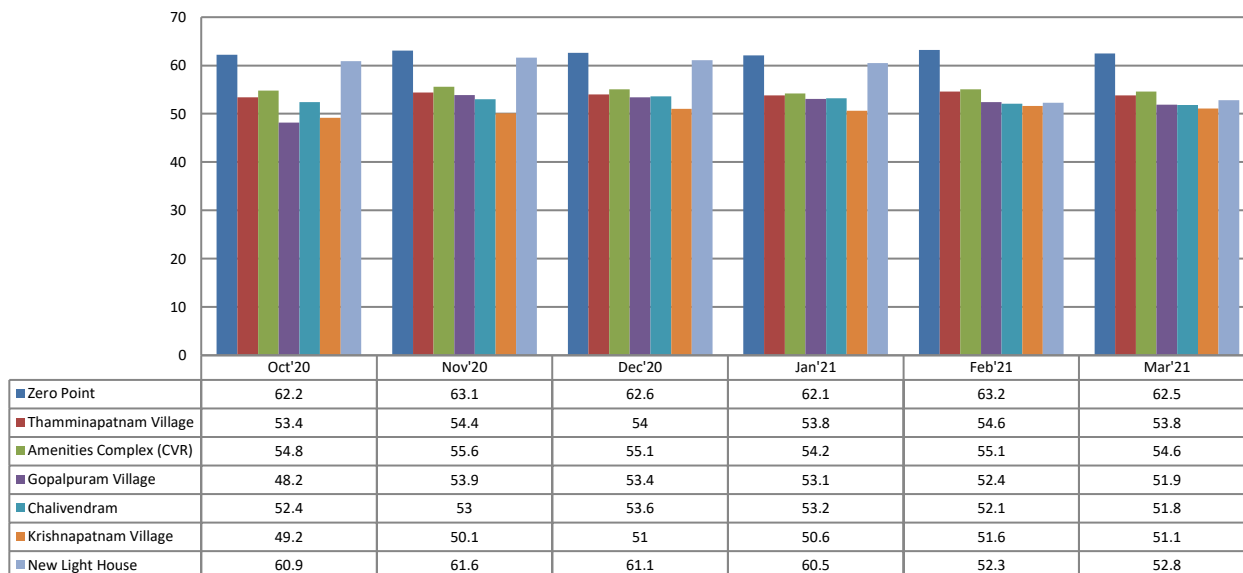
DETAILS OF NOISE MONITORING LOCATIONS

STATION CODE	LOCATIONS	DIRECTION w.r.t PROJECT SITE
N1	At Zero Point	W
N2	At Thamminapatnam Village	S
N3	At CVR Building	WNW
N4	At Gopalpuram Village	NW
N5	At Chalivendram	WNW
N6	At Krishnapatnam	NNW
N7	At Light House	SW

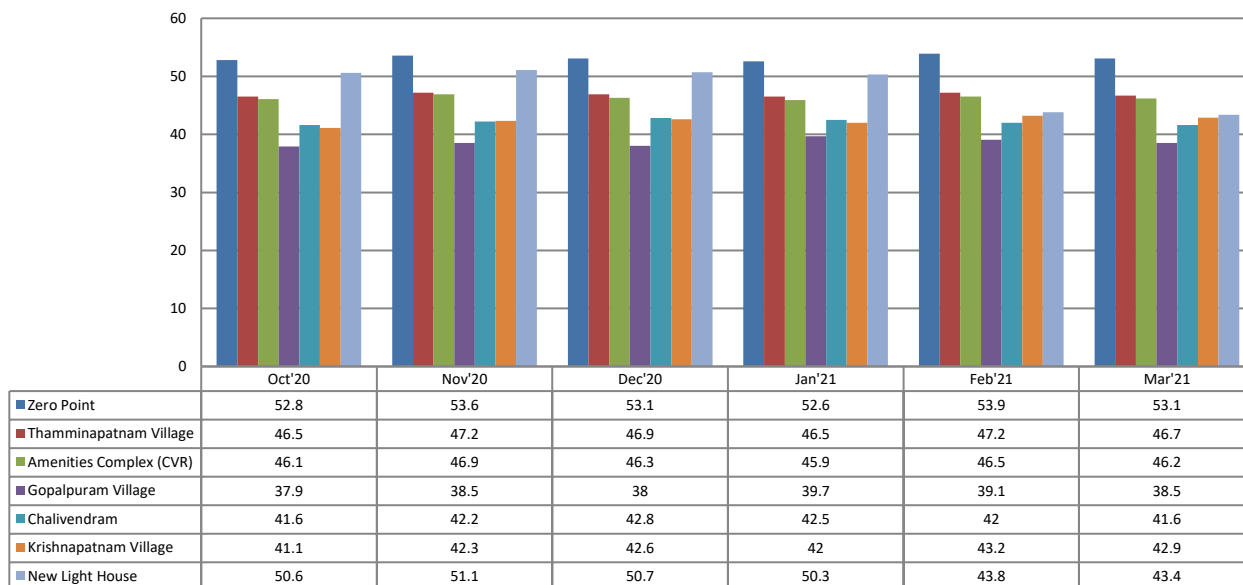
The noise monitoring locations are depicted in **Fig – 5**

The noise levels monitored during the study period are given hereunder in form of Leq day, Leq night compared with CPCB Standards.

Location Code	Environmental Setting	CPCB norms Leq (Dba)	
		Day	Night
N1	Industrial	75	70
N2	Industrial	75	70
N3	Residential	55	45
N4	Residential	55	45
N5	Residential	55	45
N6	Residential	55	45
N7	Residential	55	45

Noise Level Day time trend in dB(A)

- ❖ Industrial Day time noise level varied between 52.3 to 63.2 dB(A)
- ❖ Residential Day time noise level varied between 48.2 to 53.9 dB(A)
- ❖ NAAQ Standard: Industrial -75 Db (A); Residential -55dB(A)

Noise Level Night time trend in dB(A)

- ❖ Industrial Night time noise level varied between 43.4 to 53.9 dB(A)
- ❖ Residential Night time noise level varied between 37.9 to 43.2 dB(A)
- ❖ NAAQ Standard: Industrial -70 Db(A) ,Residential-45 dB(A)

3.3 Marine Water and Surface Water Quality

3.3.1 Sampling Locations

Marine water sampling is carried out once in every week at Four sampling locations in the port. In addition to marine quality sampling, surface water quality sampling is also carried out at two locations in the creek once in every month. The marine water and surface water sampling locations are given in **Table-4**.

Table No- 4
MARINE WATER QUALITY AND
SURFACE WATER MONITORING LOCATIONS

Location Code	Location
Marine Water Quality Sampling Location	
MW1	Coal Berth
MW2	Turning Circle
MW3	Approach Channel
MW4	Reclamation Area (Mutable)
Surface Water Sampling Location	
SW1	Kandaleru Creek
SW2	Buckingham Canal

Analysis results of the water samples collected from the above locations are enclosed

The methodology for sample collection and preservation techniques was followed as per the Standard Operating Procedures (SOP) mentioned in table hereunder:

Table No- 5

Standard Operating Procedures (SOP) For Water Sampling

Parameter	Sample Collection	Sample Size	Storage/ Preservation
pH	Grab sampling Plastic /glass container	50 ml	Refrigeration, can be stored for 7 days
Electrical Conductivity	Grab sampling Plastic /glass container	50 ml	Refrigeration, can be stored for 7 days
Total suspended solids	Grab sampling Plastic /glass container	100 ml	Refrigeration, can be stored for 7 days
Total Dissolved Solids	Grab sampling Plastic /glass container	100 ml	Refrigeration, can be stored for 7 days
BOD	Grab sampling Plastic /glass container	500 ml	Refrigeration, 48 hrs
Hardness	Grab sampling Plastic /glass container	100 ml	Add HNO ₃ to pH<2, refrigeration; 6 months
Chlorides	Grab sampling Plastic /glass container	50 ml	Not required; 28 days
Sulphates	Grab sampling Plastic /glass container	100 ml	Refrigeration; 28 days
Nitrates	Plastic containers	100 ml	Refrigeration; 48 hrs
Fluorides	Plastic containers only	100 ml	Not required; 28 days
Alkalinity	Plastic/ glass containers	100 ml	Refrigeration; 14 days
Ammonia	Plastic/ glass containers	100 ml	Add H ₂ SO ₄ to pH>2, refrigeration, 28 days
Heavy Metals (Ar, Cd, Mn, Cu, Fe, Zn, Pb etc.)	Plastic/ Glass rinse with 1+1 HNO ₃	500 ml	Filter, add HNO ₃ to pH>2; Grab sample; 6 months

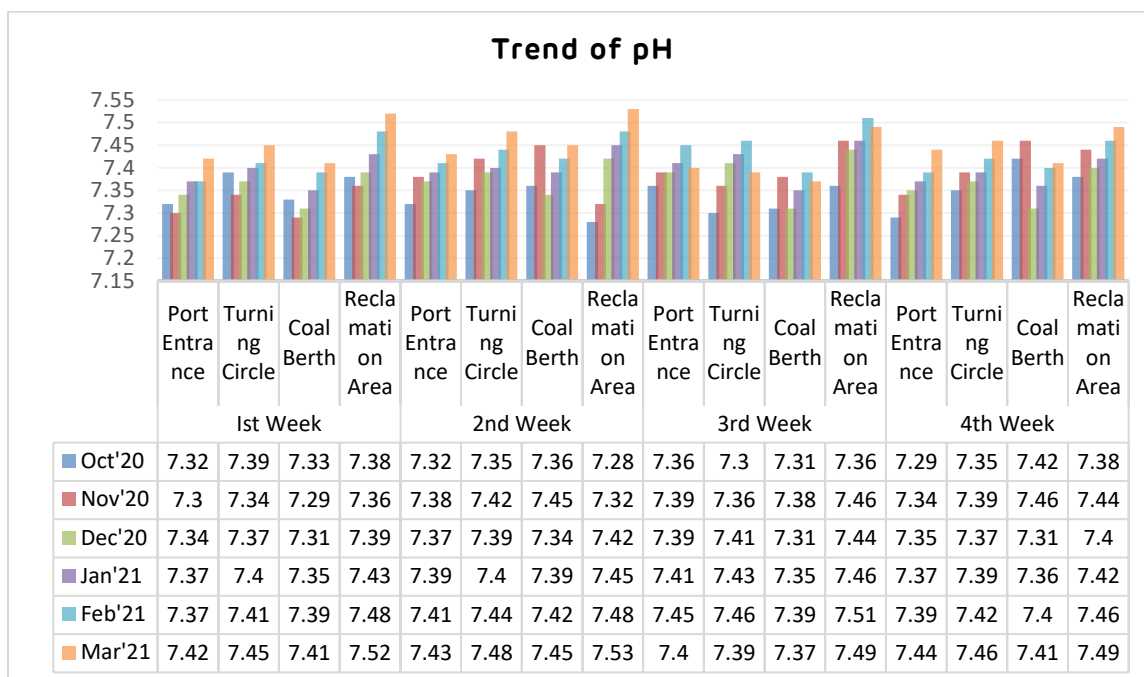
Source: Standard Methods for the Examination of Water and Wastewater, Published By APHA, 27nd Edition,2017

The analytical techniques used for water analysis is given in the table hereunder:

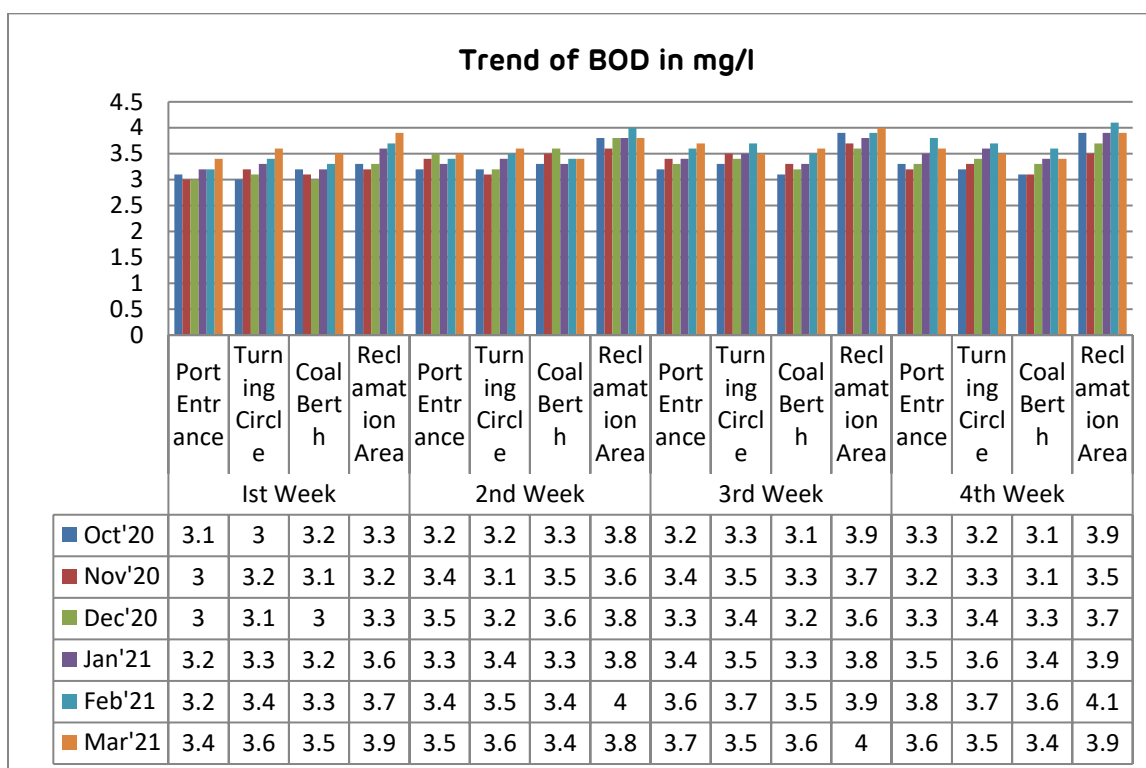
Table No- 6

Analytical Techniques for Water Analysis

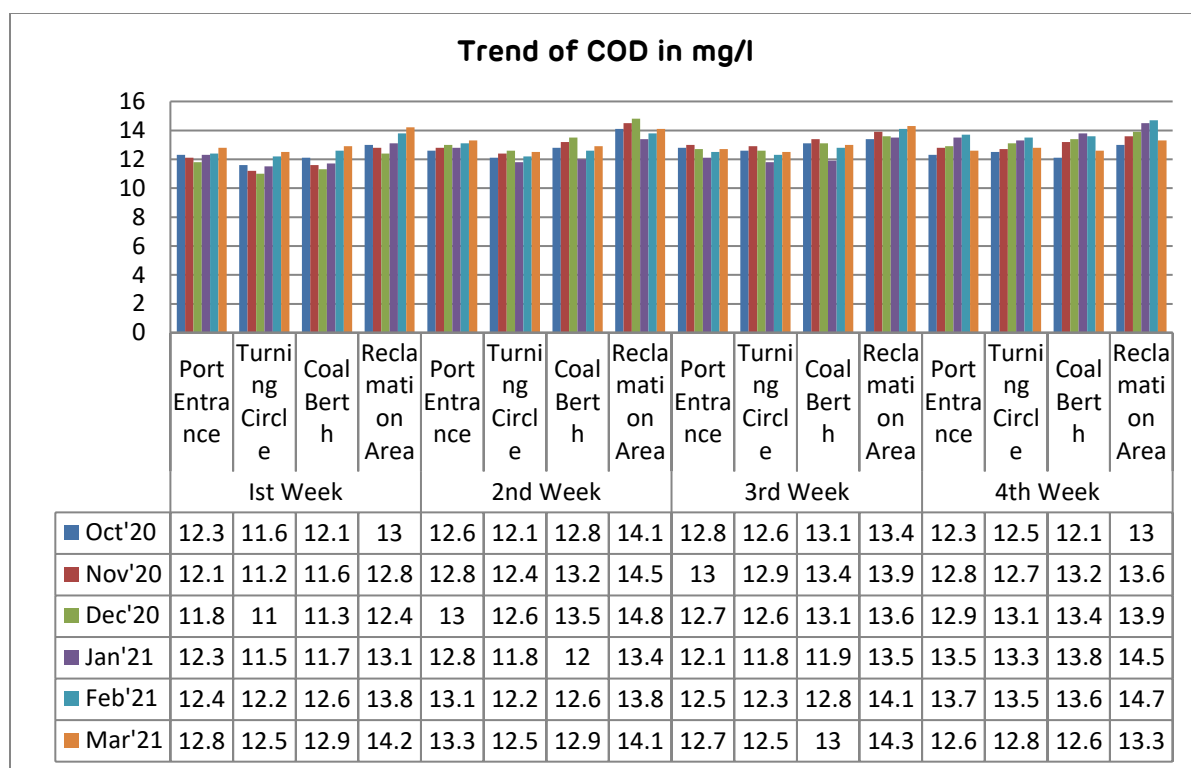
S.No	Parameter	Method
1.	pH	APHA, 4500-H+B, 23rd Ed., 2017
2.	Colour	APHA, 2120-C/2120-B, 23rd Ed., 2017
3.	Odour	APHA, 2150, 23rd Ed., 2017
4.	Temperature	APHA, 2550-A+B, 23rd Ed., 2017
5.	Oil & Grease	APHA, 5520-D, 23rd Ed., 2017
6.	Total Suspended Solids	APHA, 2540-D, 23rd Ed., 2017
7.	Total Dissolved Solids	APHA, 2540-C, 23rd Ed., 2017
8.	Total Residual Chlorine	APHA, 4500-Cl B, 23rd Ed., 2017
9.	Biochemical Oxygen Demand	APHA, 5210-B, 23rd Ed., 2017 4500-OC, 23rd Ed.,
10.	Chemical Oxygen Demand	APHA, 5220-B, 23rd Ed., 2017
11.	Free Ammonia	IS 3025
12.	Ammonical Nitrogen	APHA, 4500-NH ₃ B, 23rd Ed., 2017
13.	Total Kjeldhal Nitrogen	APHA, 4500-Norg B, 23rd Ed., 2017
14.	Zinc	APHA, 3111-B, 23rd Ed., 2017
15.	Lead	APHA, 3111-B, 23rd Ed., 2017
16.	Cadmium	APHA, 3111-B, 23rd Ed., 2017
17.	Mercury	APHA, 3112-B, 23rd Ed., 2017
18.	Arsenic	APHA, 3114-B, 23rd Ed., 2017
19.	Copper	APHA, 3111-B, 23rd Ed., 2017
20.	Nickel	APHA, 3111-B, 23rd Ed., 2017
21.	Cyanide	APHA, 4500-CNB, 23rd Ed., 2017
22.	Fluoride	APHA, 4500-FD, 23rd Ed., 2017 (SPANDS Methods)
23.	Phosphates	APHA, 4500-PD, 23rd Ed., 2017
24.	Sulphates	APHA, 4500-SO ₄ ²⁻ E, 23rd Ed., 2017
25.	Sulphide	APHA, 4500-S ²⁻ , 23rd Ed., 2017
26.	Manganese	APHA, 3111-B, 23rd Ed., 2017
27.	Iron	APHA, 3111-B, 23rd Ed., 2017
28.	Phenolic Compounds	APHA, 5530-B, 23rd Ed., 2017
29.	Bio Assay Test	IS 6582

Status of Marine water Quality

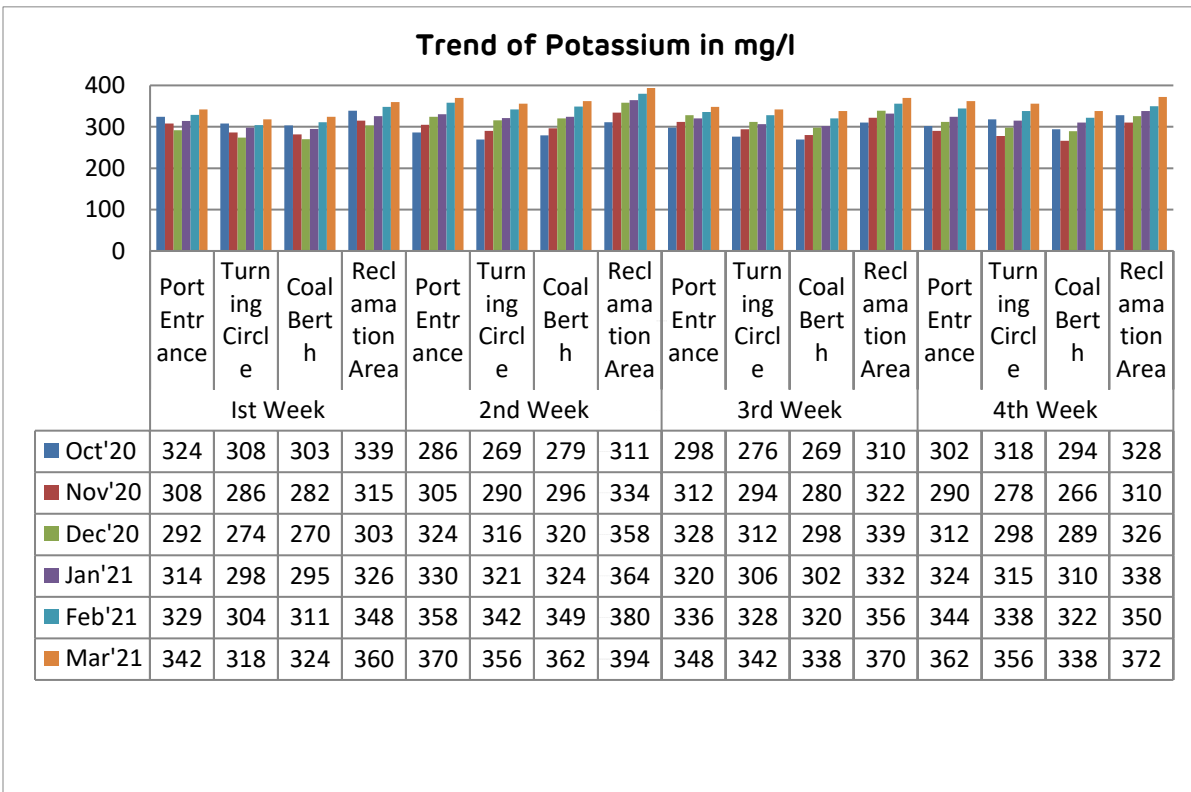
pH of Marine water varied between 7.28 to 7.53



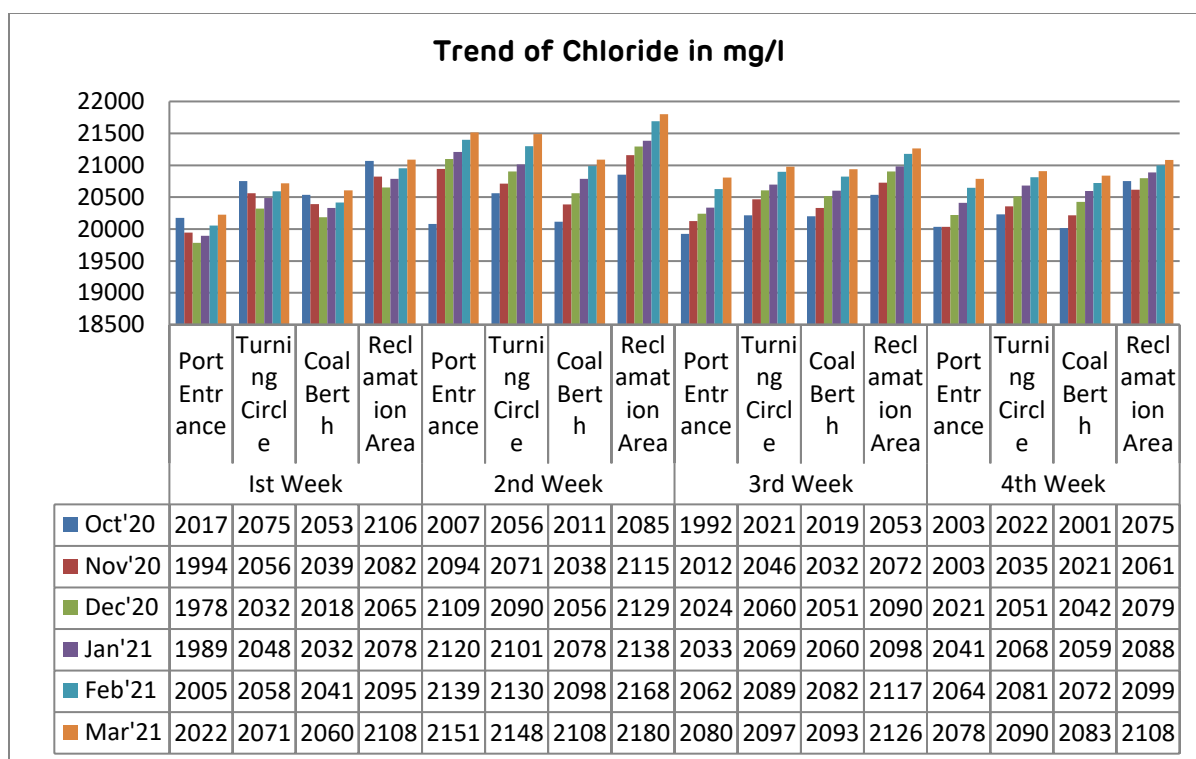
BOD of Marine Water varied between 3.0 to 4.1 mg/l



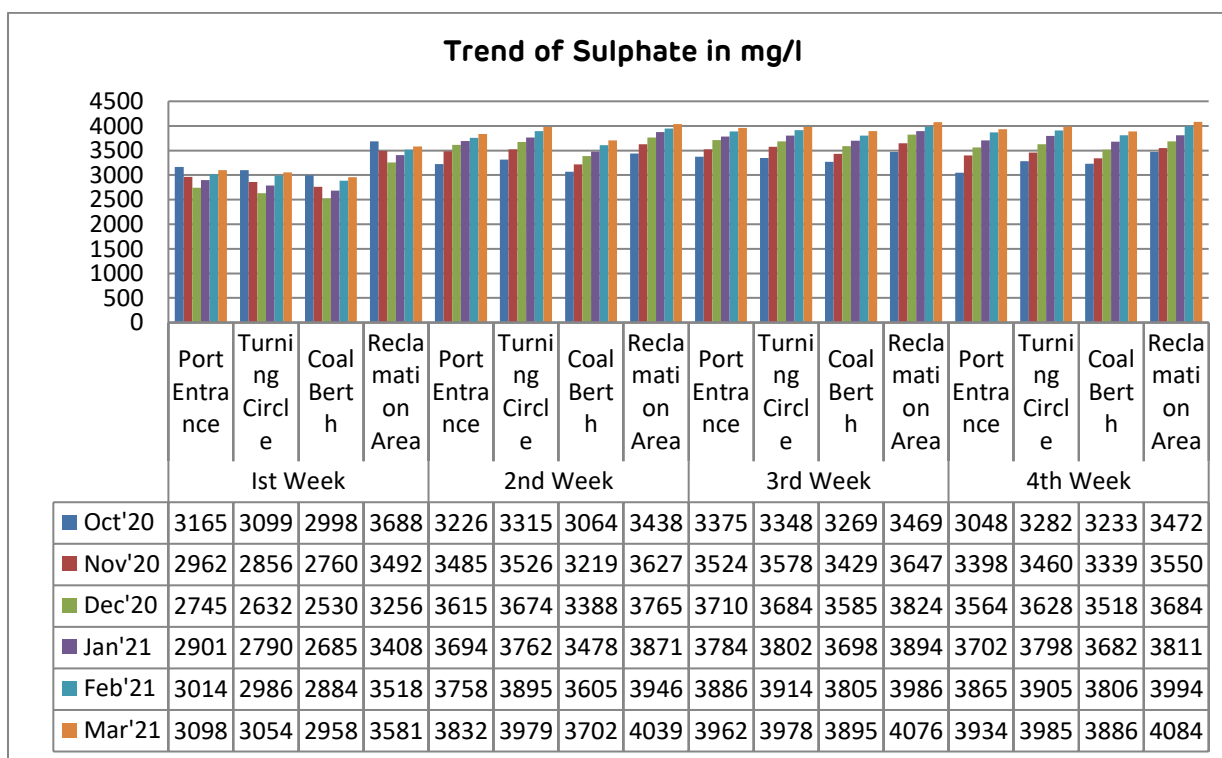
COD of Marine Water varied between 11.0 to 14.8 mg/l



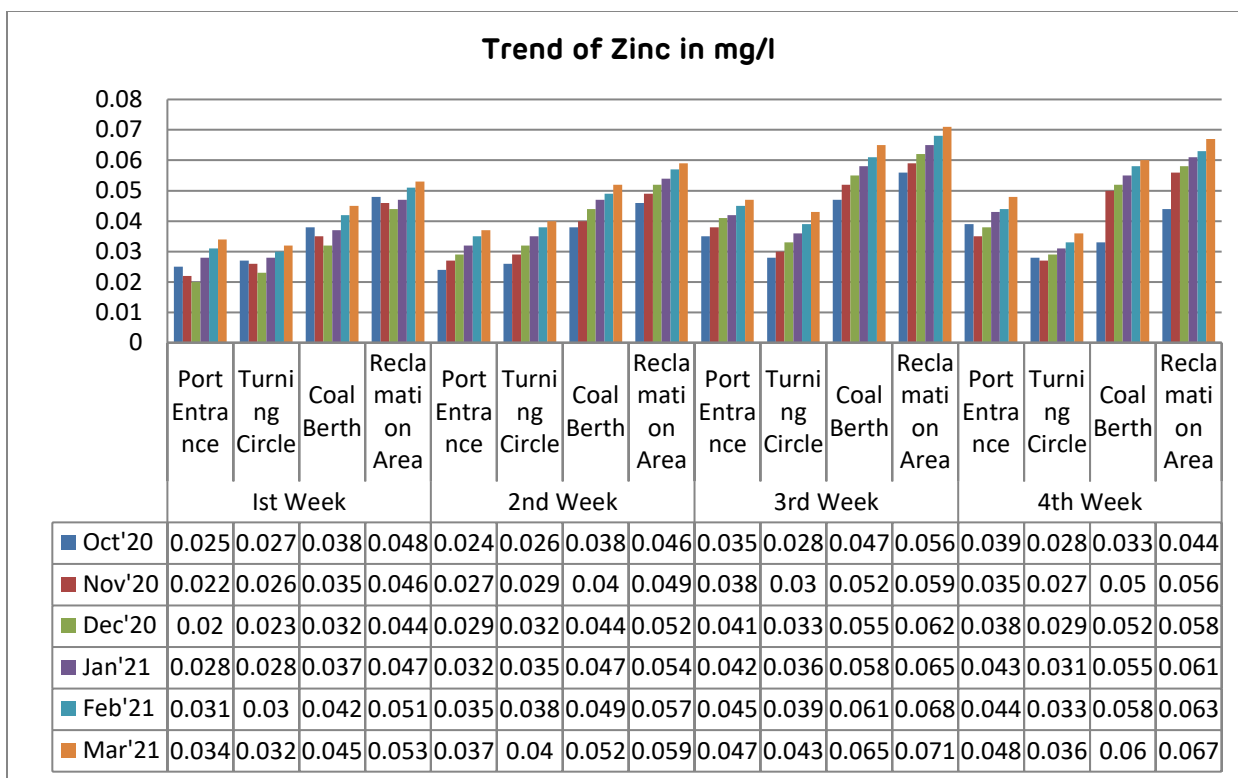
Potassium Concentration in Marine water varied between 266 to 394 mg/l



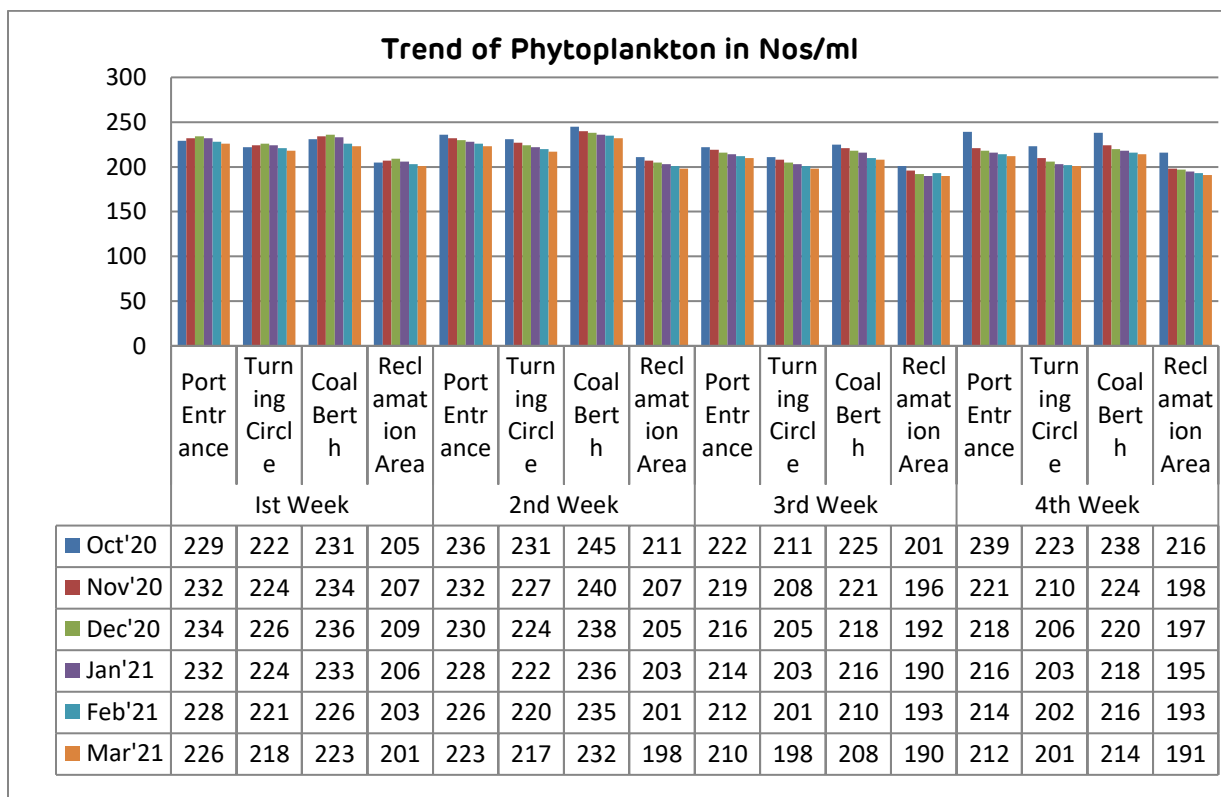
❖ Chloride concentration in Marine water varied between 19786 to 21802 mg/l



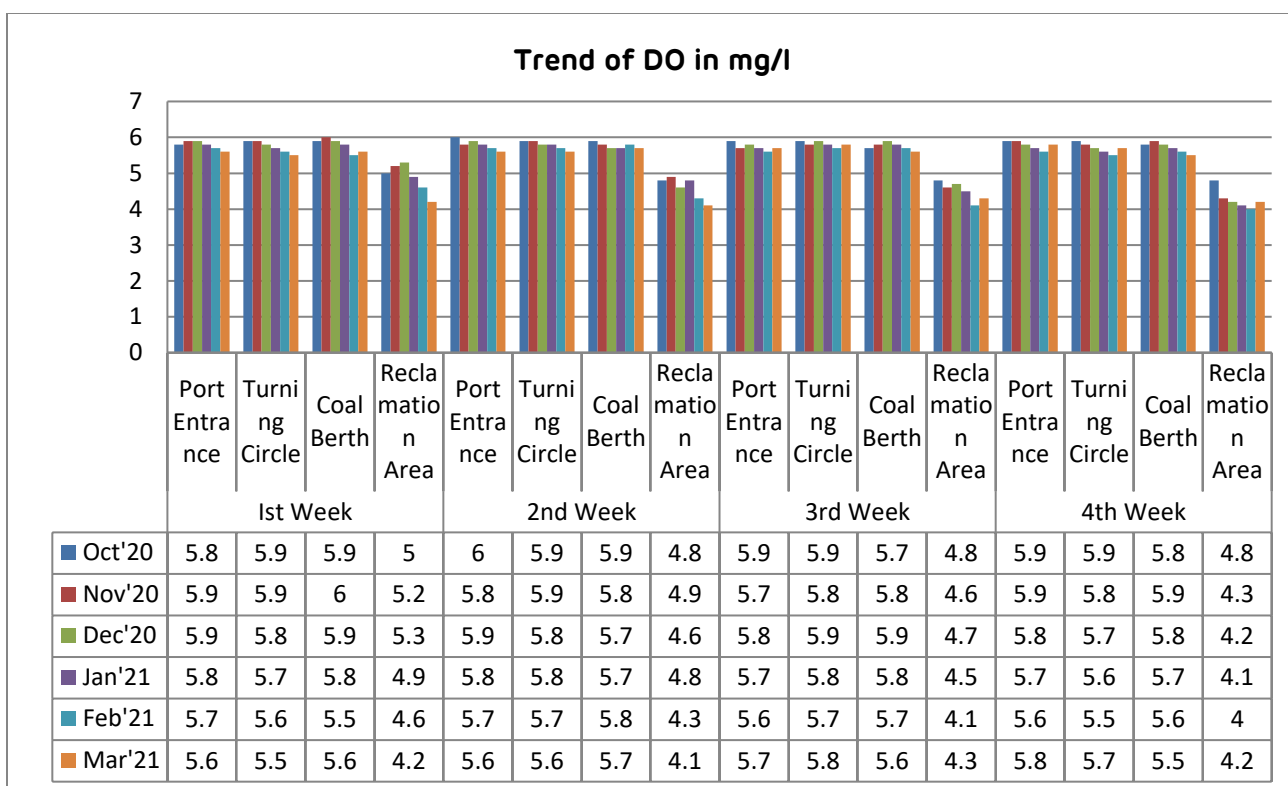
❖ Sulphate concentration in Marine water varied between 2530 to 4084 mg/l



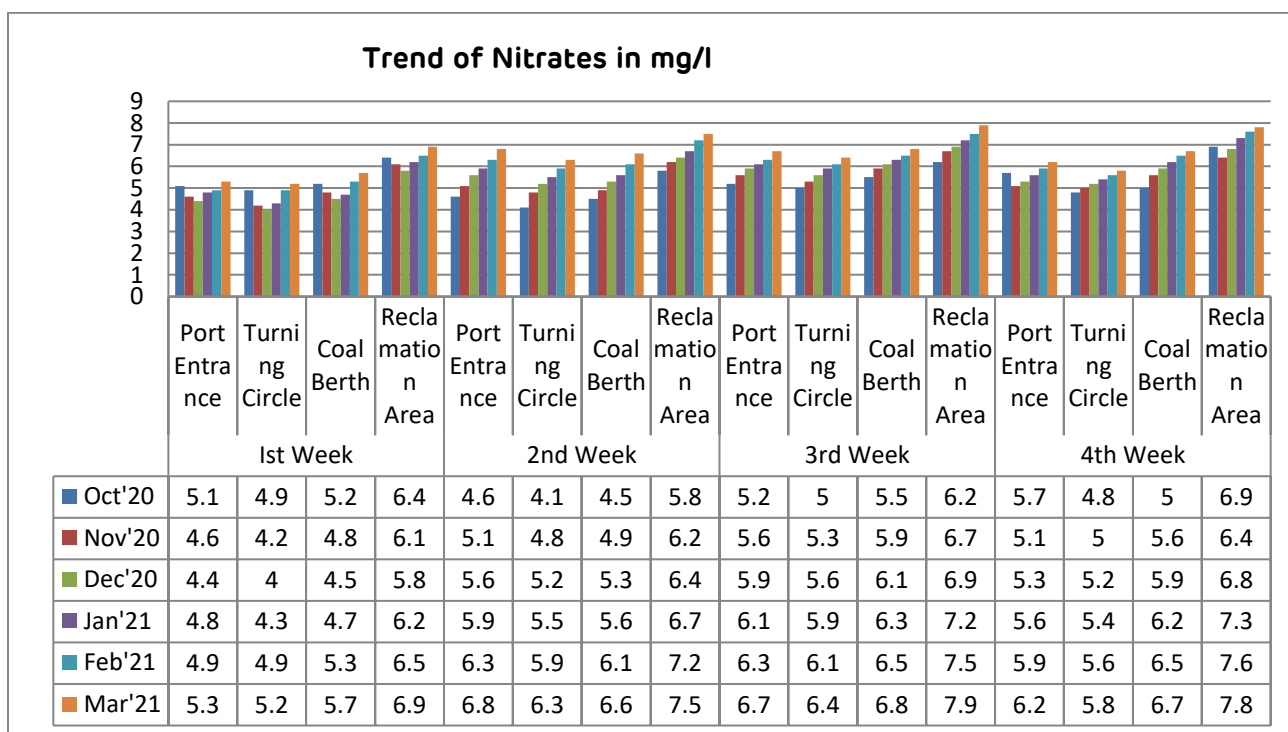
❖ Zinc concentration in Marine water varied between 0.020 to 0.071 mg/l



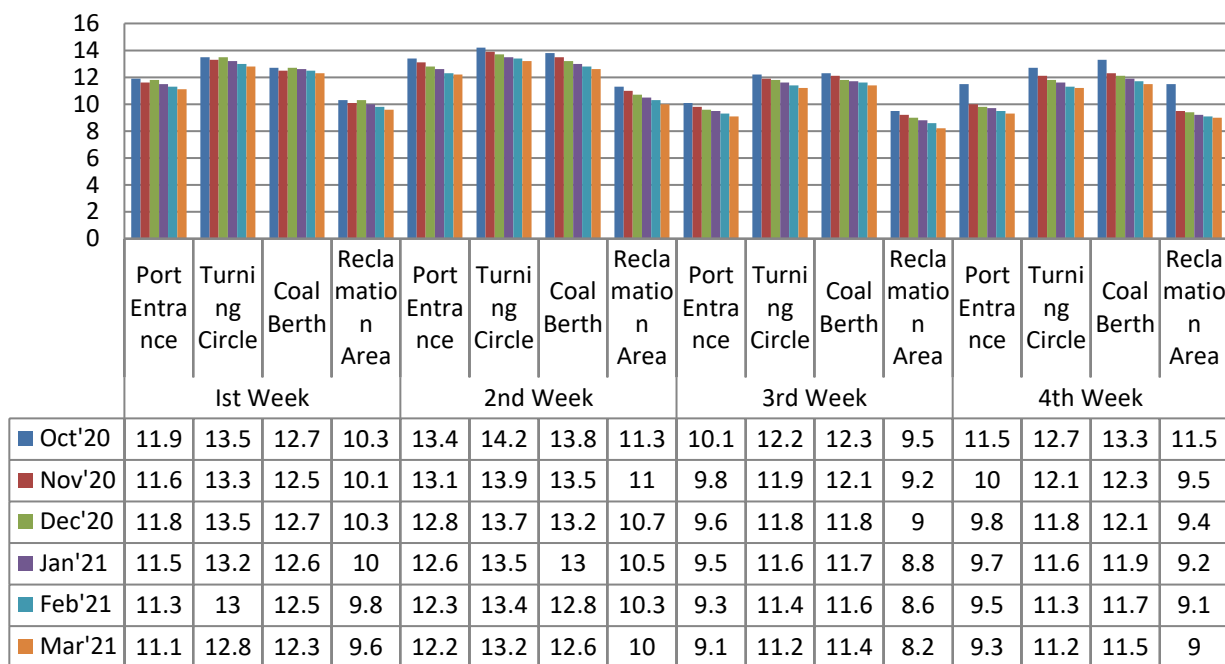
❖ Phytoplankton in Marine water varied between 190 to 245 No./ml



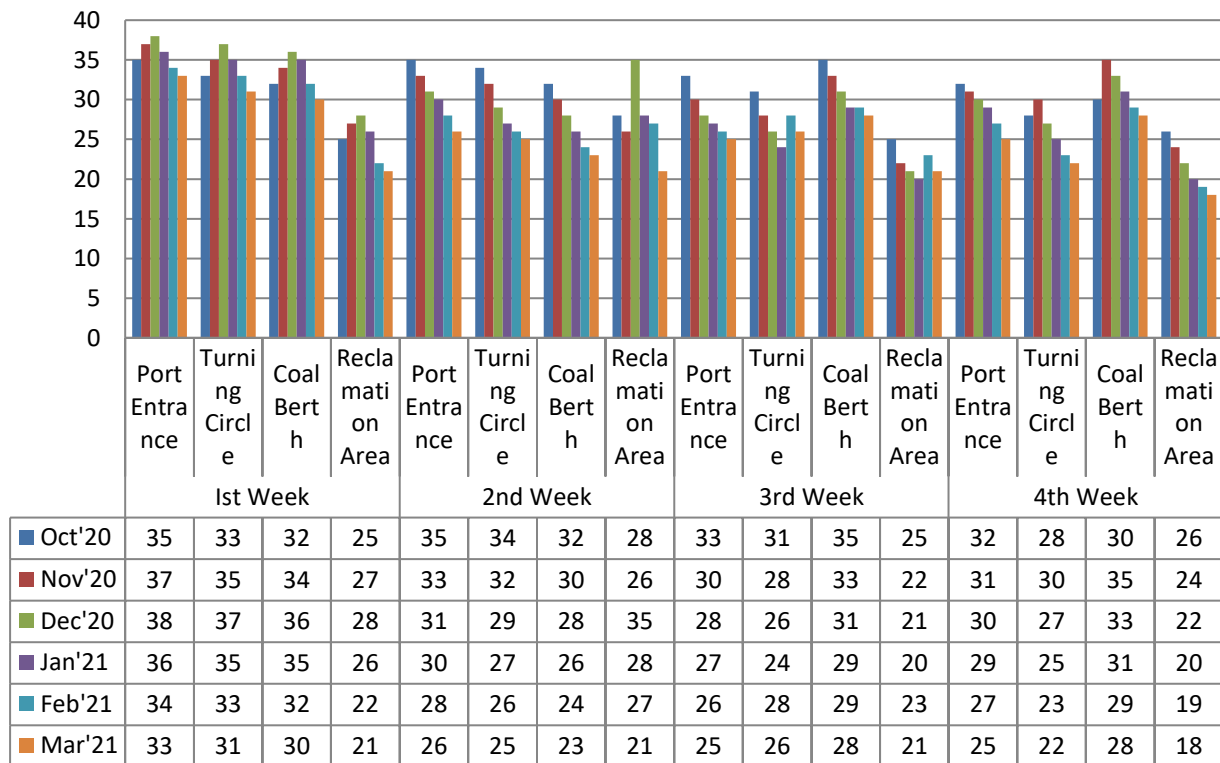
❖ DO in Marine water varied between 4.0 to 6.0 mg/l



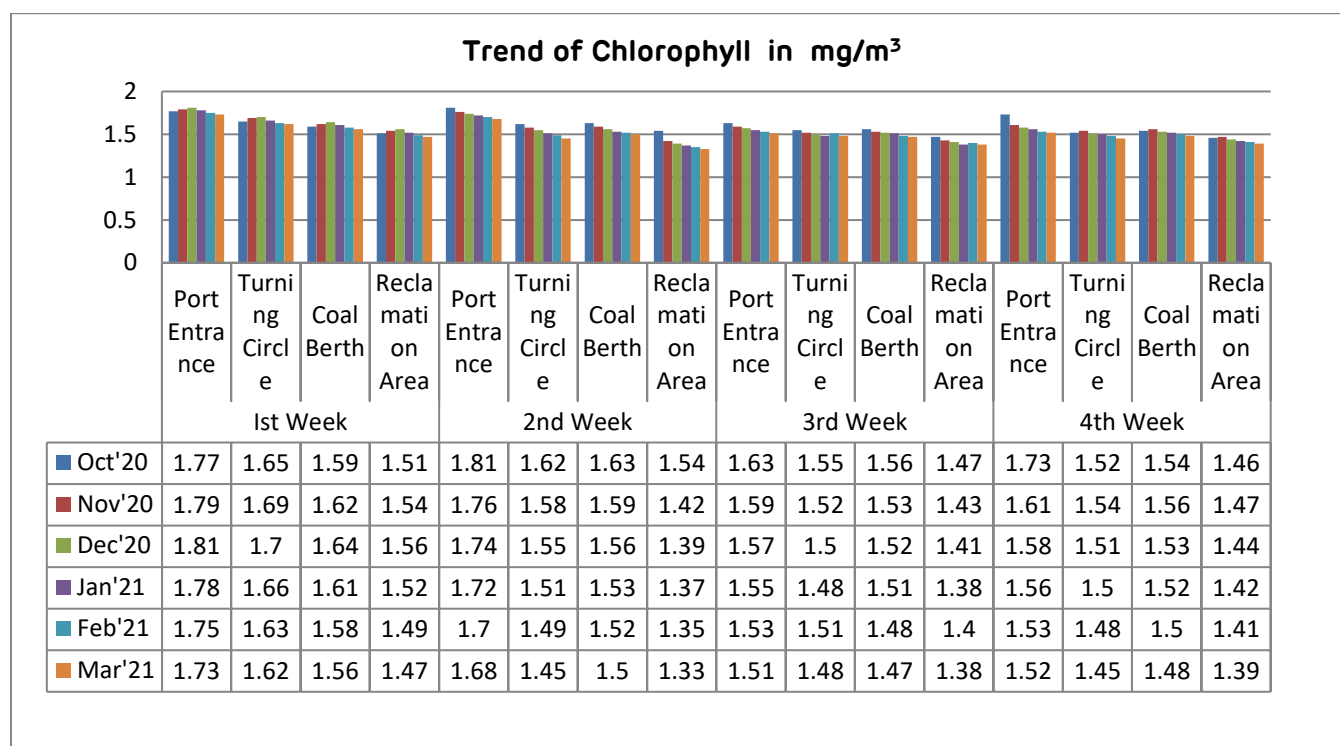
❖ Nitrates in Marine water varied between 4.0 to 7.9 mg/l

Trend of Zooplankton in ml/100m³

❖ Zooplankton in Marine water varied between 8.2 to 14.2 ml/100m³

Trend of Primary Productivity in mgC m⁻²d⁻¹

❖ Primary Productivity in Marine water varied between 18 to 38 mgC m⁻²d⁻¹



❖ Chlorophyll in Marine water varied between 1.33 to 1.81 mg/m³

Summary of Marine water quality results for six months of period Oct'20 – Mar'21

- pH - values are in the range 7.28 to 7.53
- BOD - values are in the range 3.0 to 4.1 mg/l
- COD - values are in the range 11.0 to 14.8 mg/l
- Potassium - values are in the range 266 to 394 mg/l
- Chloride - values are in the range 19786 to 21802 mg/l
- Sulphates - values are in the range 2530 to 4086 mg/l
- Zinc - values are in the range 0.020 to 0.071 mg/l
- Phytoplankton - values are in the range 190 to 245 No./ml
- DO - values are in the range 4.0 to 6.0 mg/l
- Nitrates - values are in the range 4.0 to 7.9 mg/l
- Zoo plankton - values are in the range 8.2 to 14.2 ml/100m³
- Primary productivity - values are in the range 18 to 38.0 mgC m⁻²d⁻¹
- Chlorophyll - values are in the range 1.33 to 1.81 mg/m³

3.4 Marine Water Turbidity

Marine water turbidity is carried out on one day every week at each of the four locations of Marine Water quality sampling (MT1, MT2 ,MT3 and MT4). Turbidity levels are monitored during Low Tide, Medium Tide and High Tide.

MARINE TURBIDITY MONITORING LOCATIONS

Sampling Code	Name of the Location
MT1	Coal Berth
MT2	Turning circle
MT3	Approach channel
MT4	Reclamation Area (Mutable)

3.4.1 Marine Deep Sea Turbidity

Marine water turbidity is carried out in the deep water i.e., at the dredged material disposal area on one day every month at three locations.

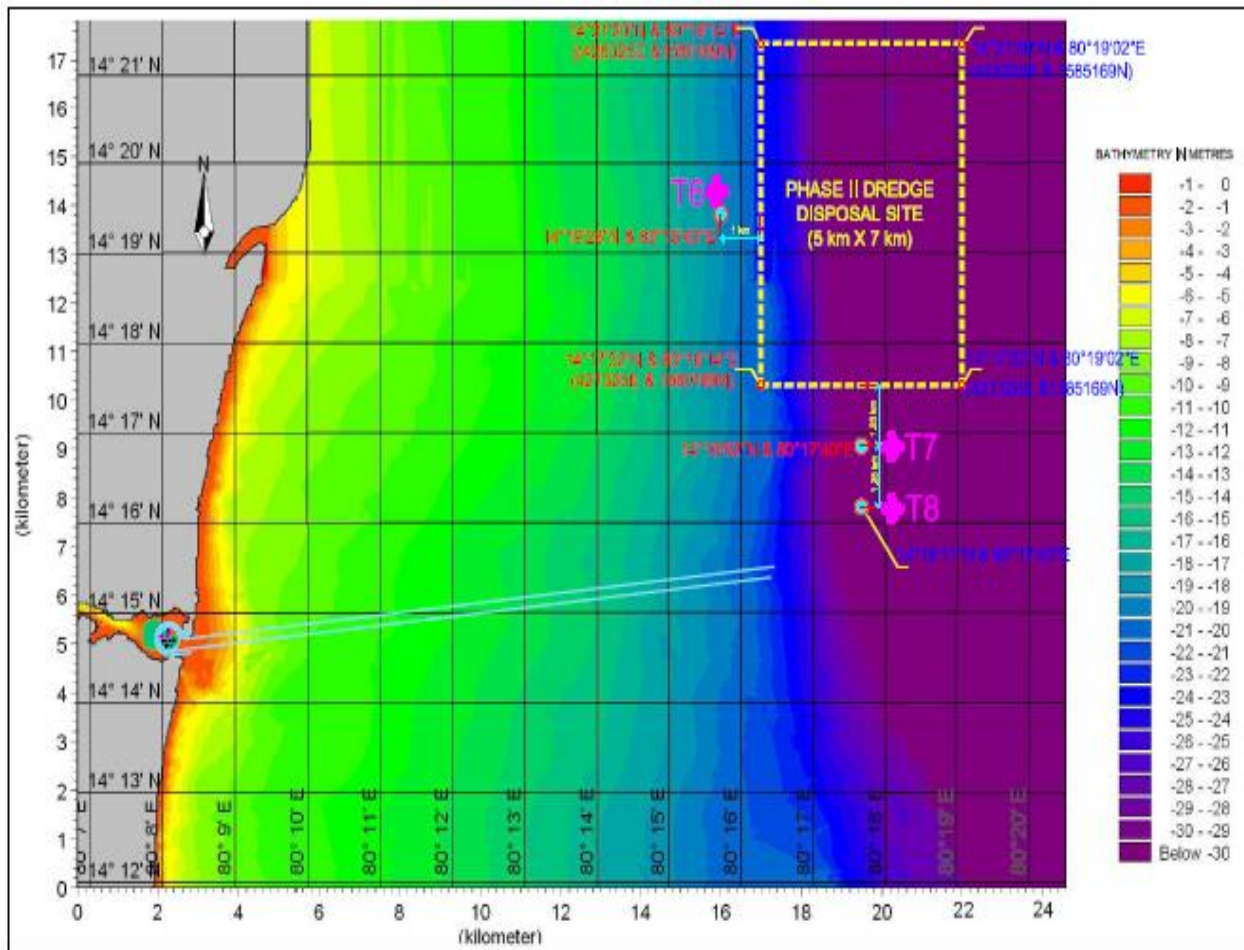
3.4.2 Sampling Locations

Turbidity levels are monitored during Low Tide, Medium Tide and High Tide. Monitoring locations listed below and **Figure-4**.

MARINE DEEP SEA TURBIDITY MONITORING LOCATIONS

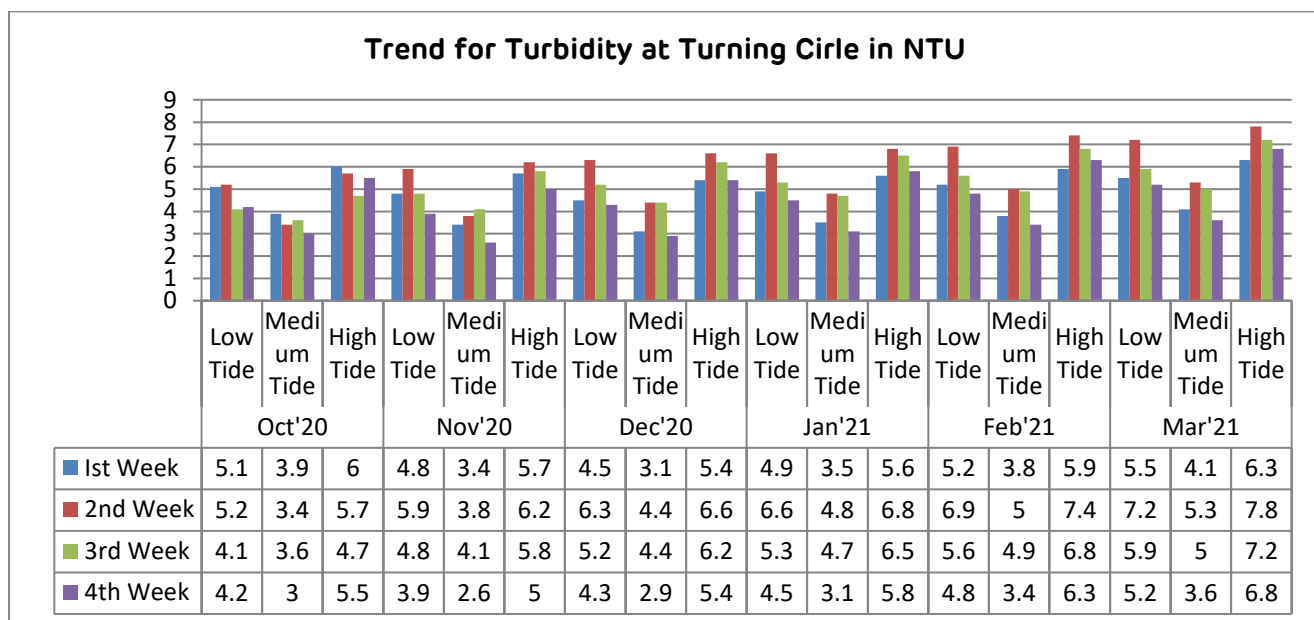
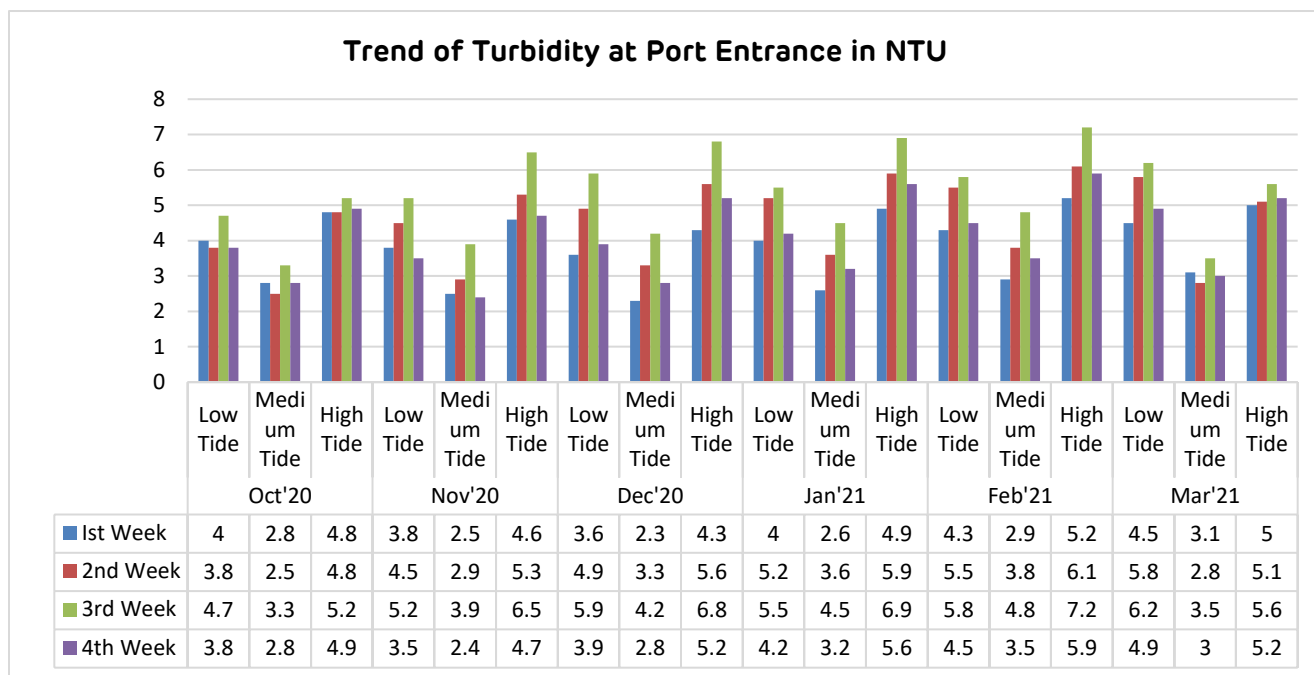
Location Code	Geographical Co-ordinates
DS1	14 ⁰ 19'26"N ; 80 ⁰ 15'43"E
DS2	14 ⁰ 16'52"N ; 80 ⁰ 17'40"E
DS3	14 ⁰ 16'11"N ; 80 ⁰ 17'40"E

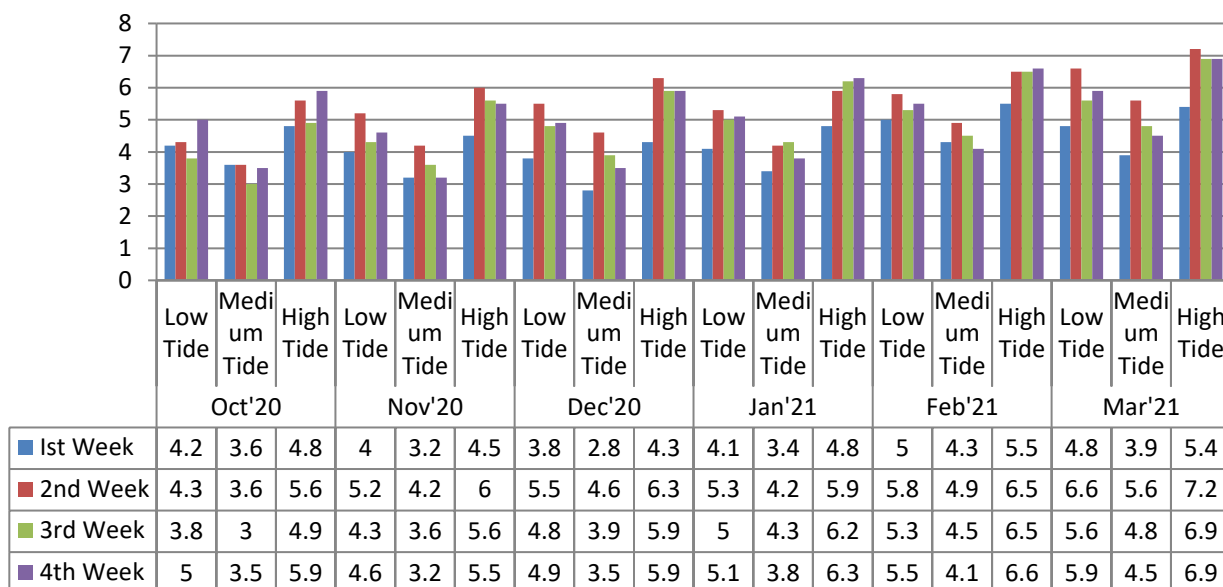
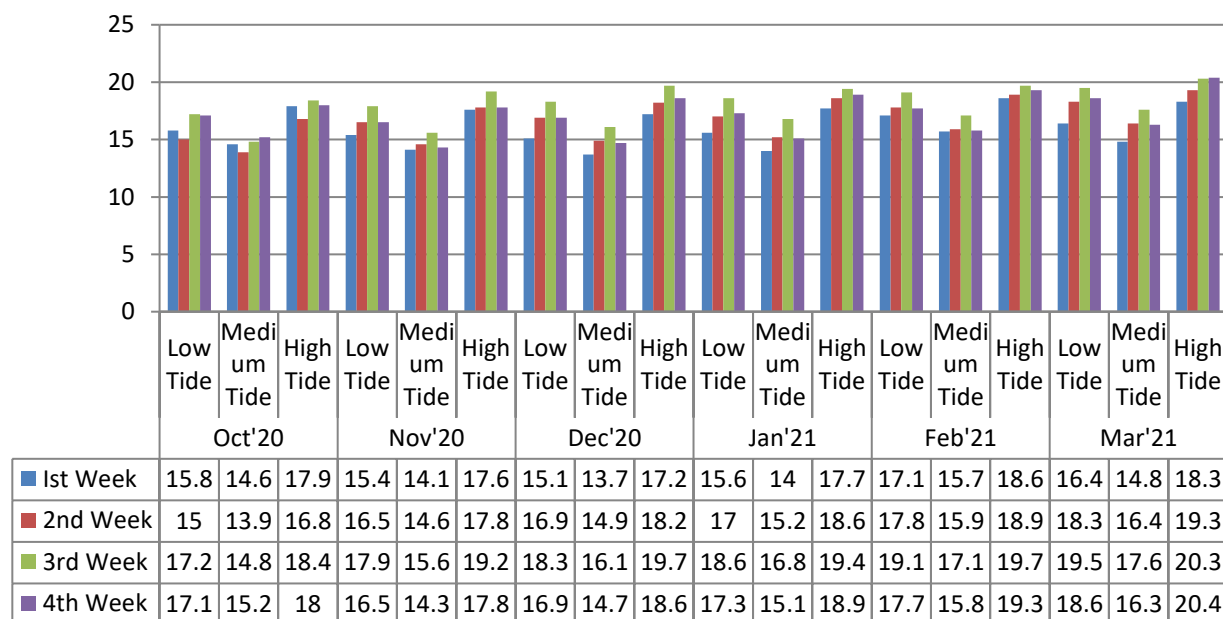
FIGURE-4
KRISHNAPATNAM PORT DEEP SEA MONITORING LOCATIONS



CODE	PARAMETERS	CO-ORDINATES OF MONITORING STATION
✚	Turbidity Monitoring	
T6		14° 19' 26" N & 80° 15' 43" E
T7		14° 16' 52" N & 80° 17' 40" E
T8		14° 16' 11" N & 80° 17' 40" E

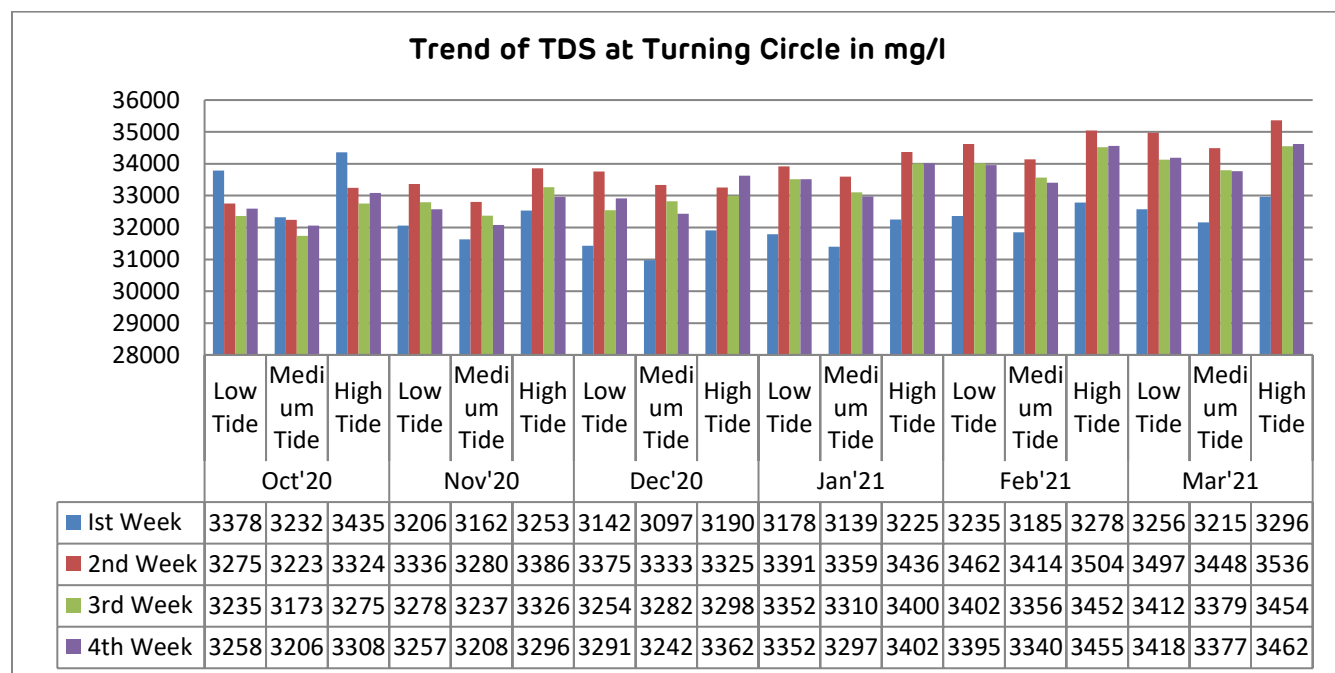
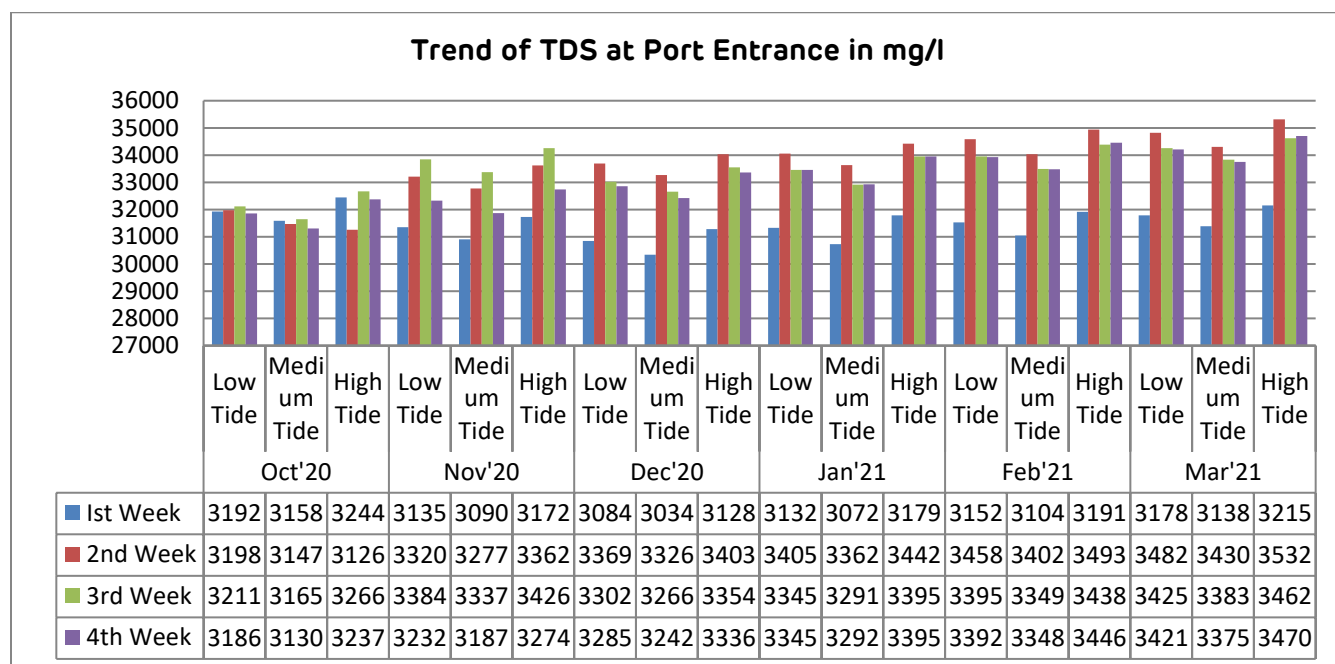
Status of Turbidity in Marine Water

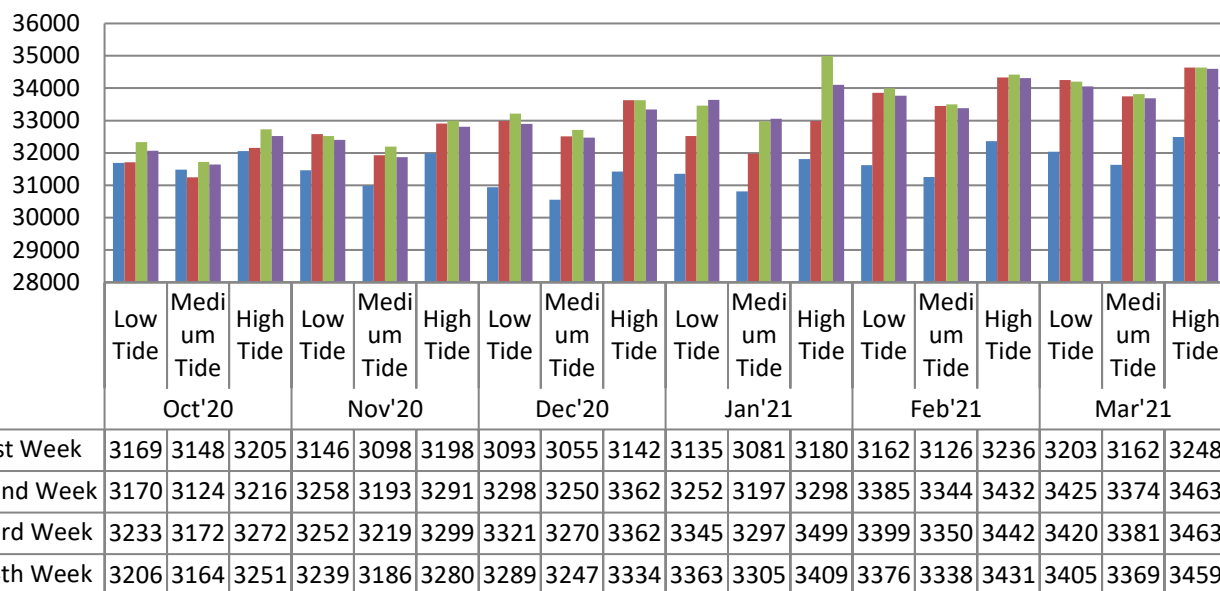
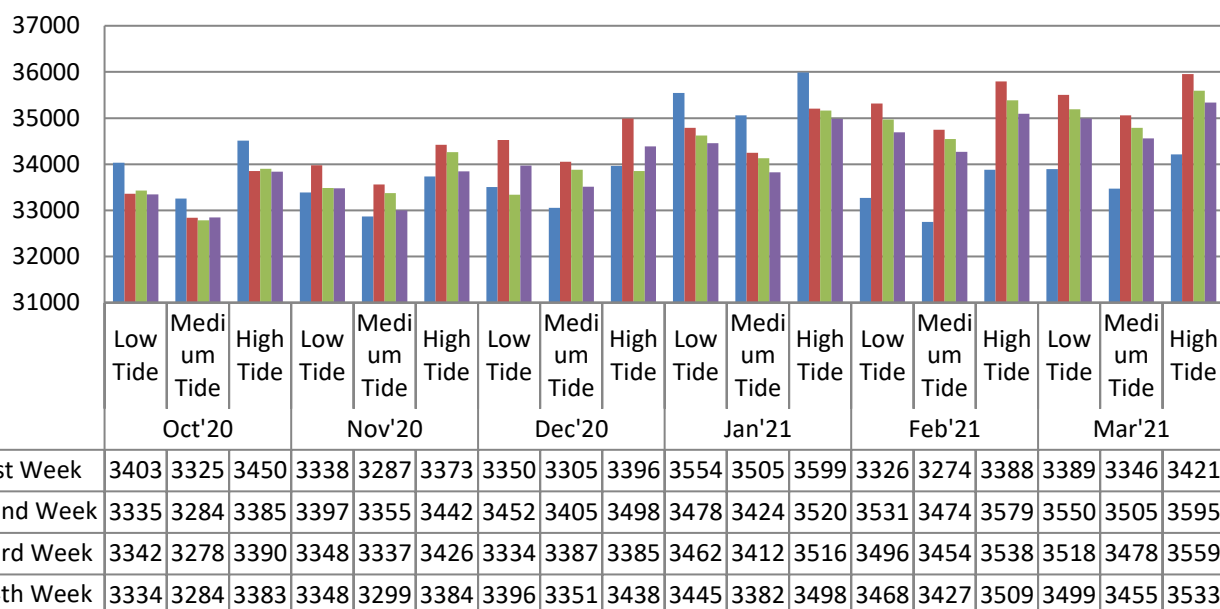


Trend of Turbidity at Coal Berth in NTU**Trend of Turbidity at Reclamation Area in NTU**

Summary of Turbidity: Coal berth varied between 2.8 to 7.2 NTU: Turning circle varied between 2.6 to 7.8 NTU and Approach channel varied between 2.3 to 7.8 NTU: Reclamation Area varied between 13.7 to 20.4 NTU.

Status of Total Dissolved Solids in Marine Water



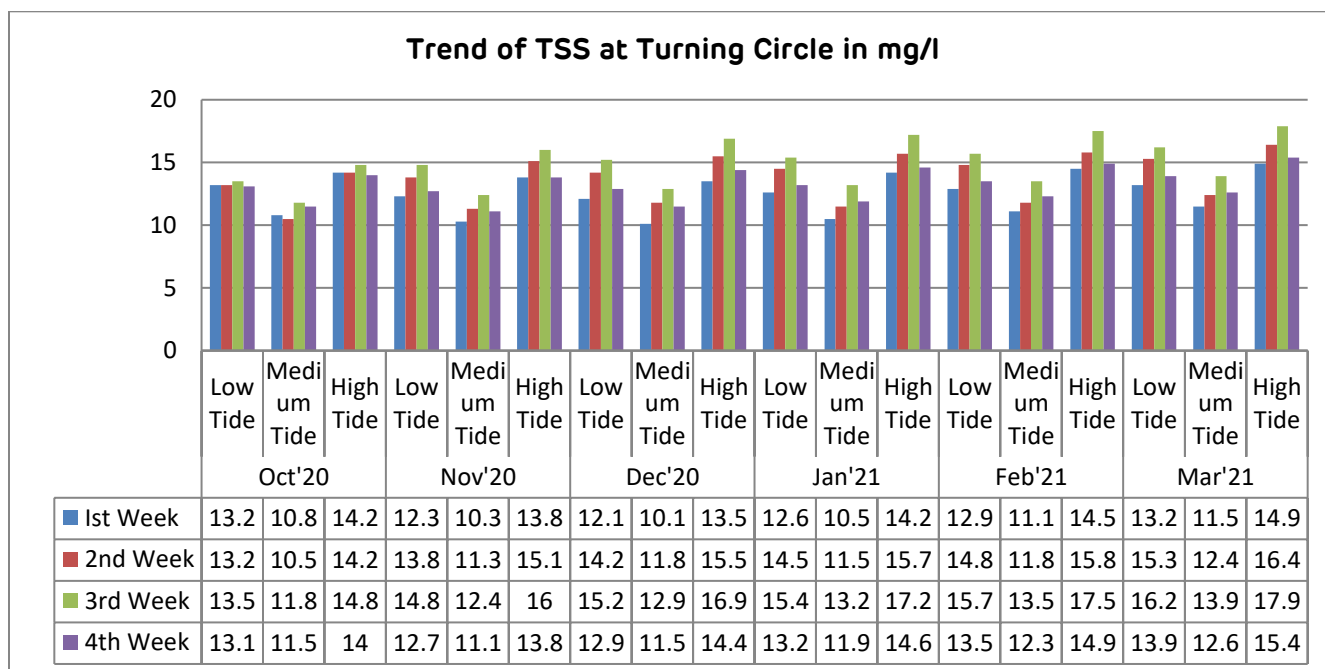
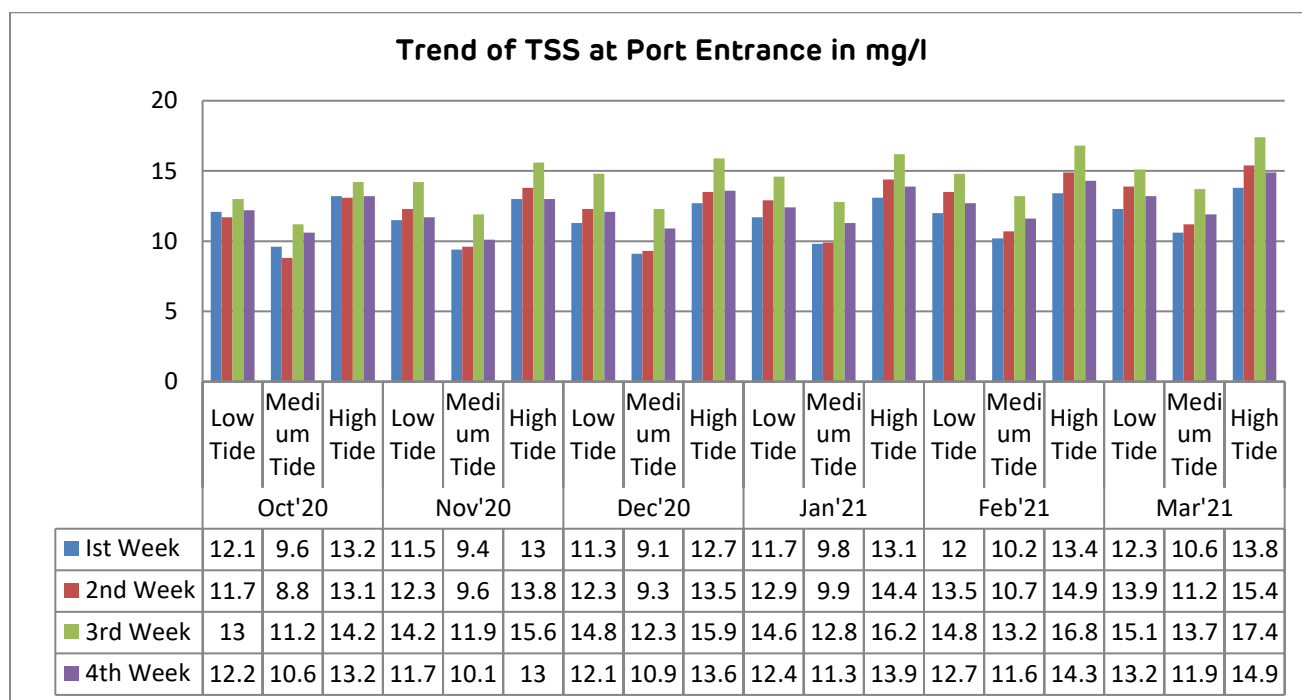
Trend for TDS at Coal Berth in mg/l**Trend for TDS at Reclamation Area in mg/l****Summary of TDS of Marine water quality results**

TDS - Values are in the range of 30340 to 35321 mg/l at Port Entrance (Approach Channel).

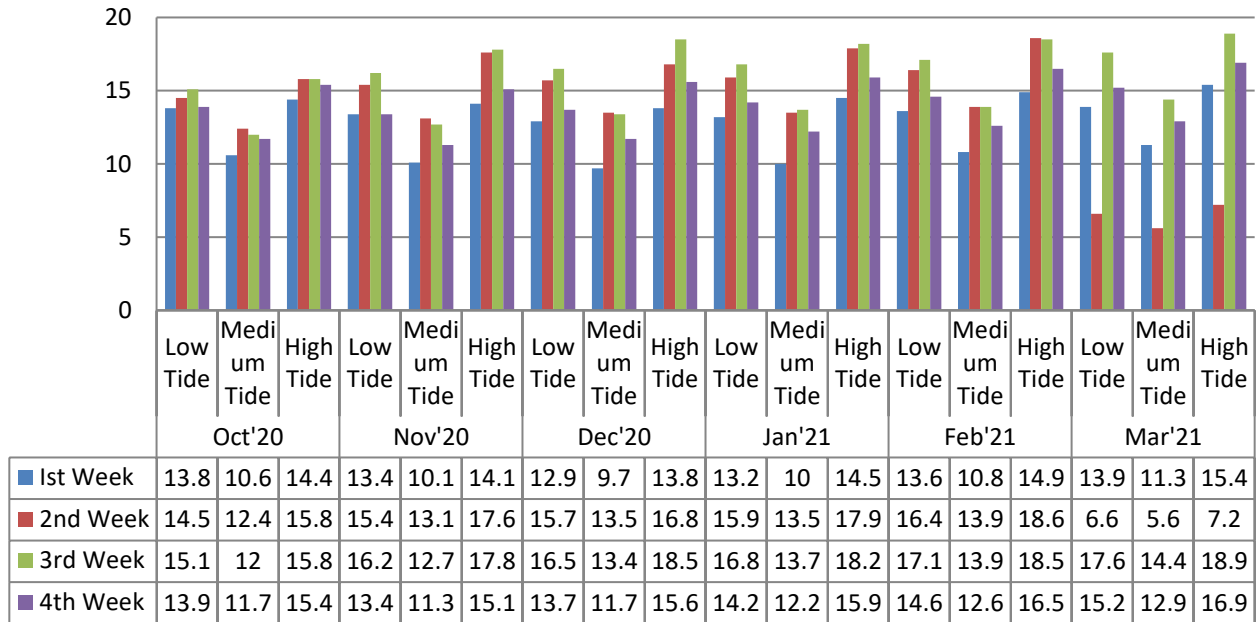
- Values are in the range of 30978 to 35369 mg/l at Turning Circle

- Values are in the range of 30552 to 34994 mg/l at Coal Berth

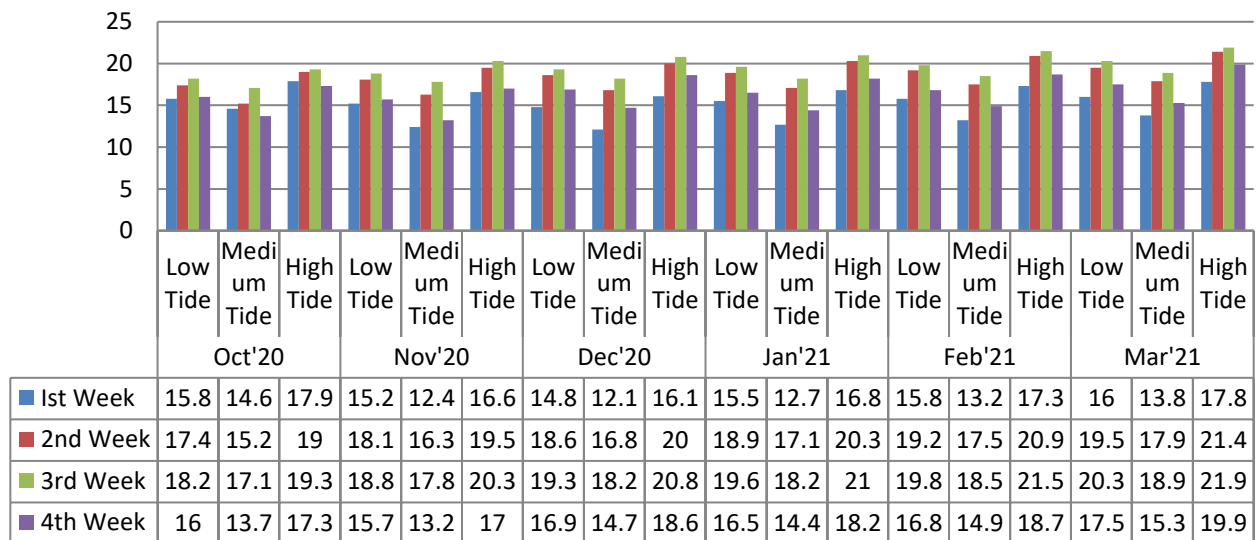
- Values are in range of 32749 to 35990 at Reclamation Area

Status of Total Suspended Solids in Marine Water

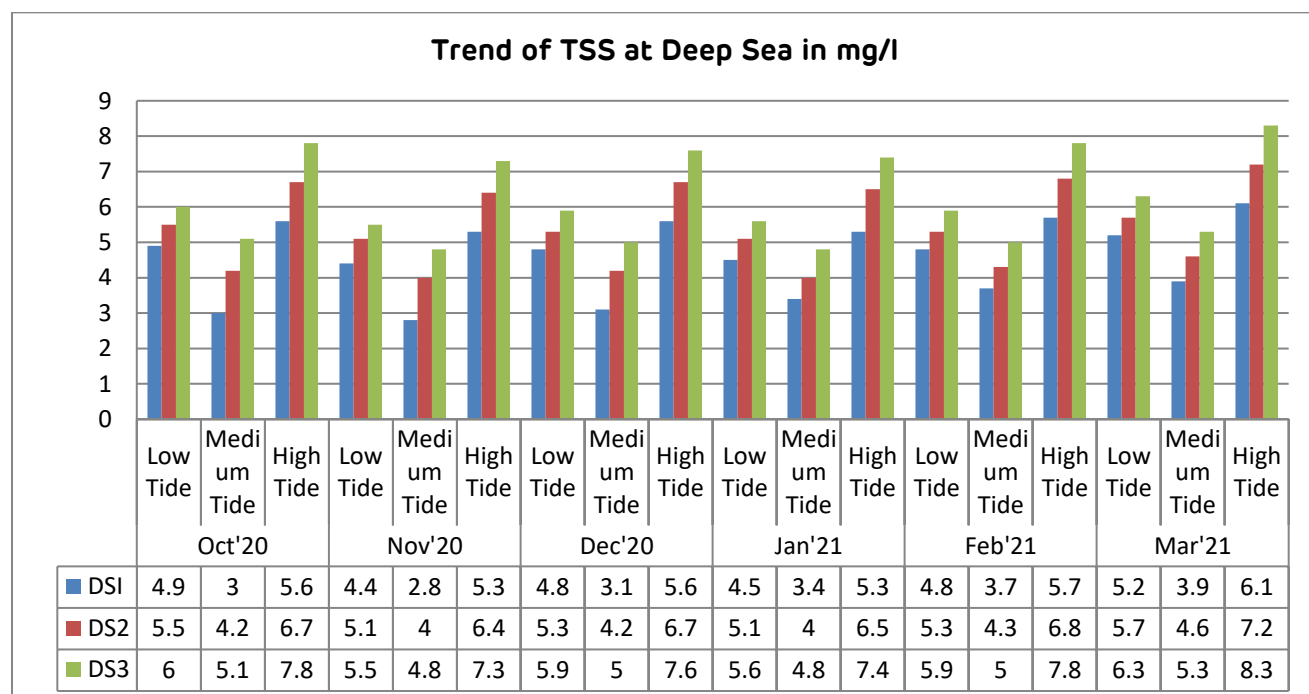
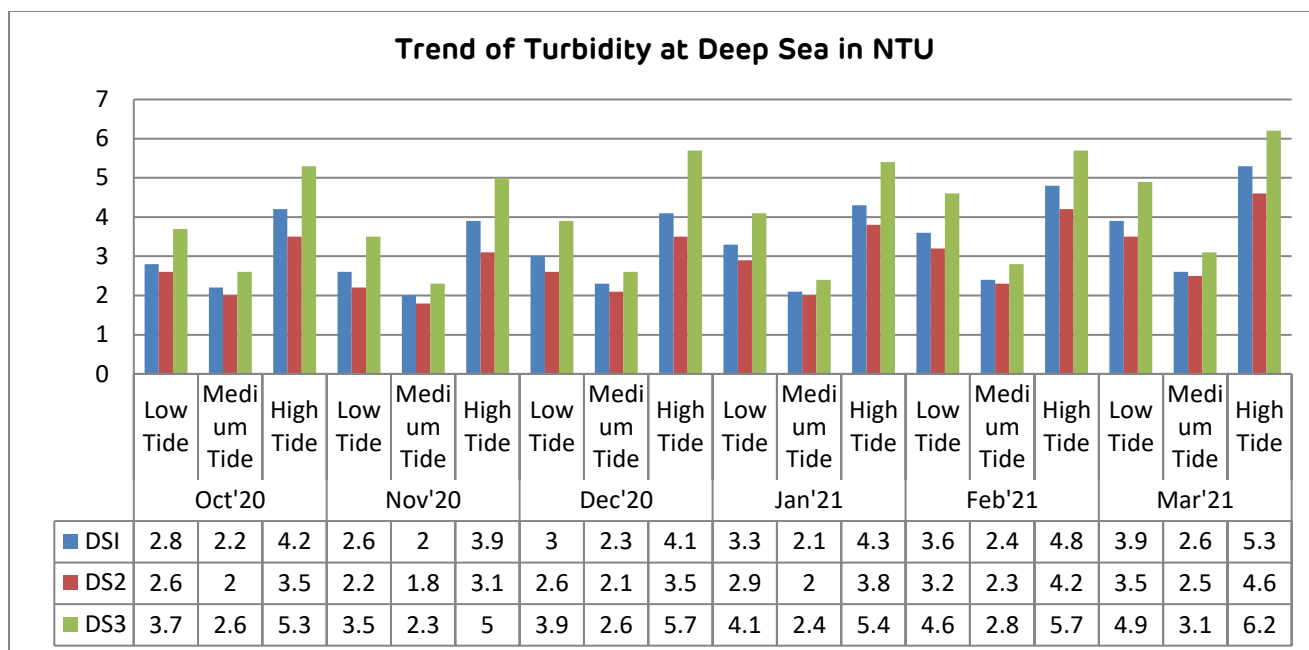
Trend for TSS at Coal Berth in mg/l

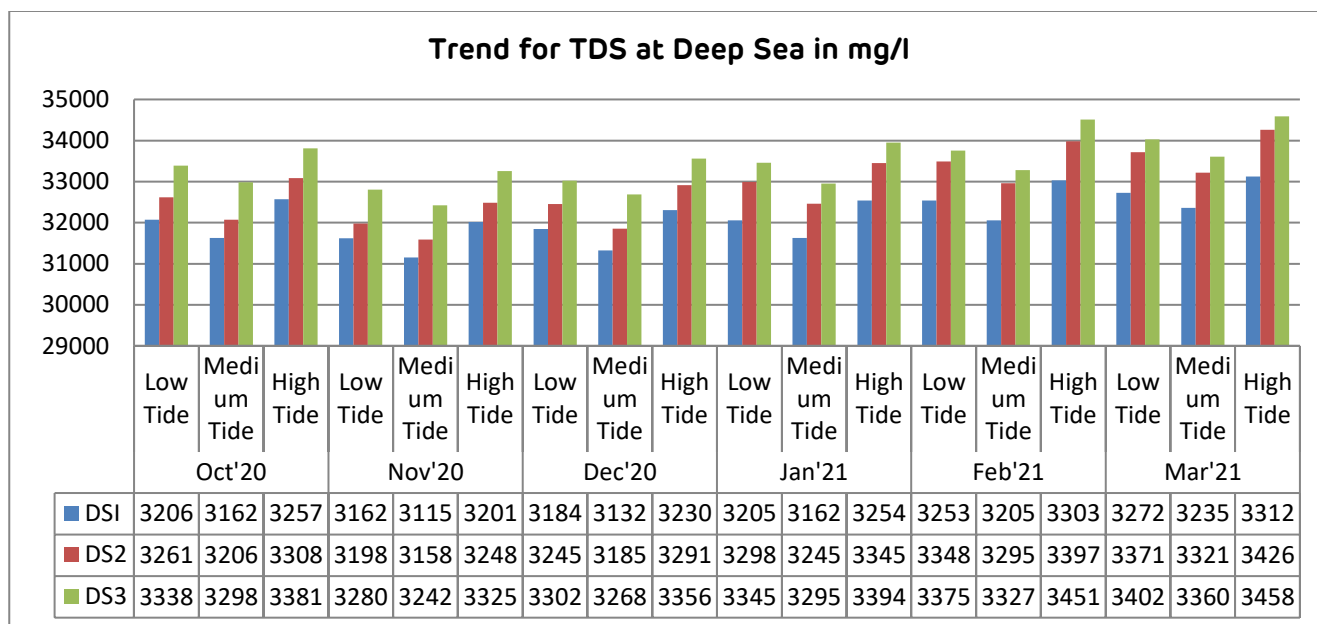


Trend for TSS at Reclamation Area in mg/l



Status of Deep Sea Water Quality





3.5 Marine Sediment Quality

3.5.1 Sampling Locations

The Marine sediment sampling is carried out once in every week at four locations in the port listed below.

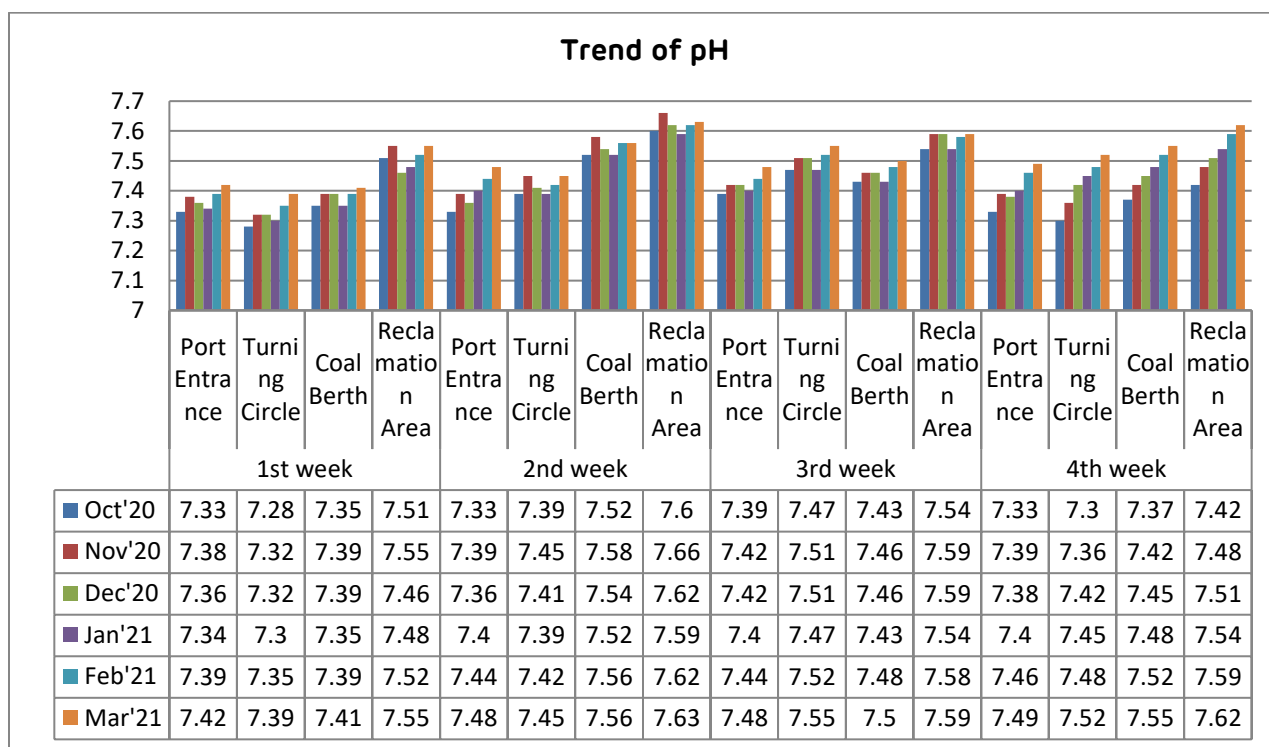
MARINE SEDIMENT MONITORING LOCATIONS

S. No	Location
1	Port Entrance
2	Turning Circle
3	Coal Berth
4	Reclamations Area

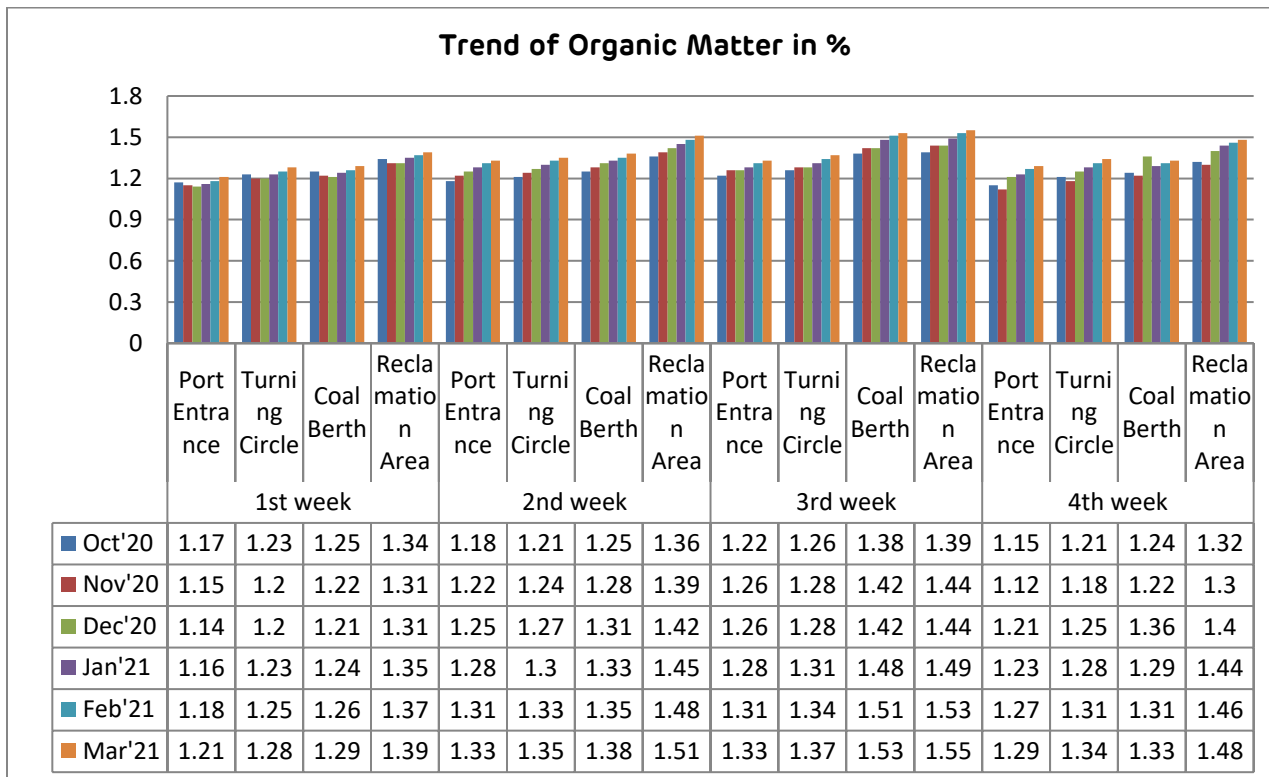
3.5.2 Method of Sampling

Marine sediment samples are collected using Van Veen Grab Sampler for analyzing Physical, Chemical and Biological parameters and presence of Heavy metals.

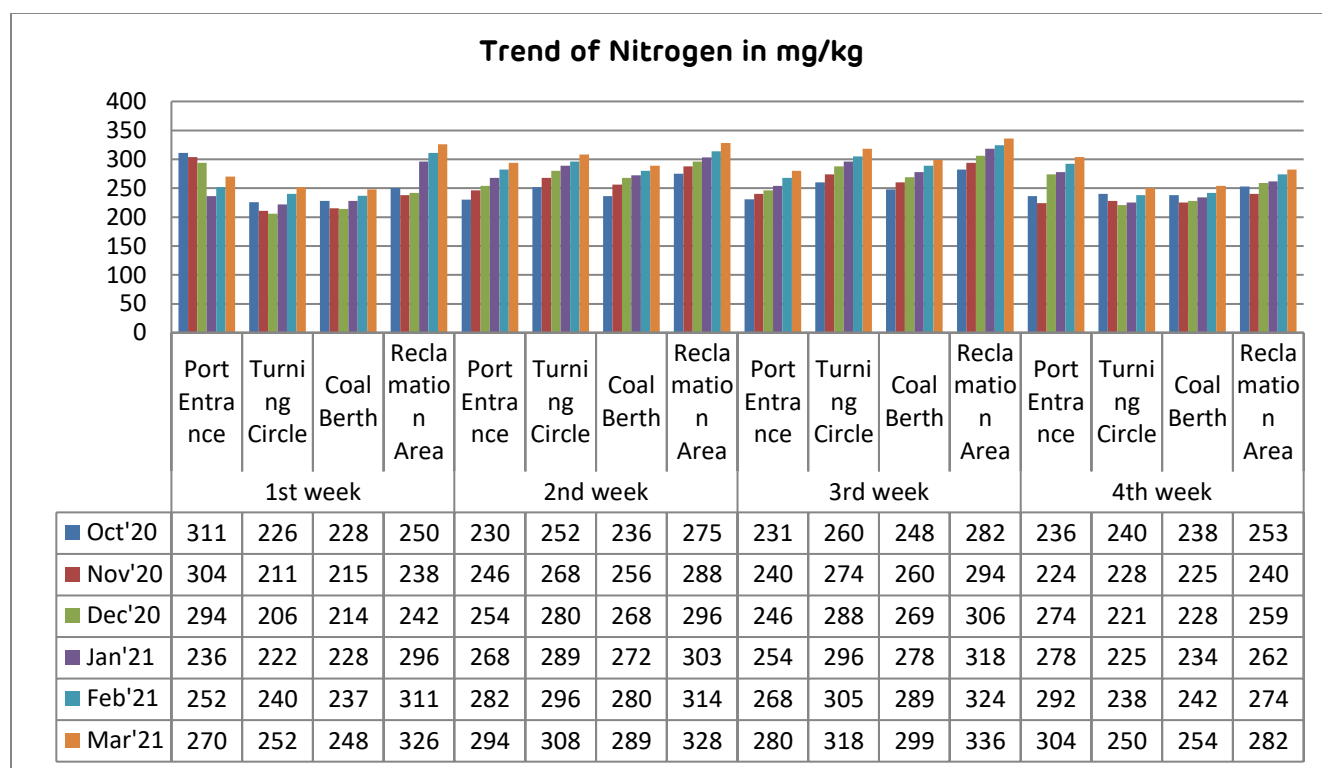
Status of Marine Sediments Quality



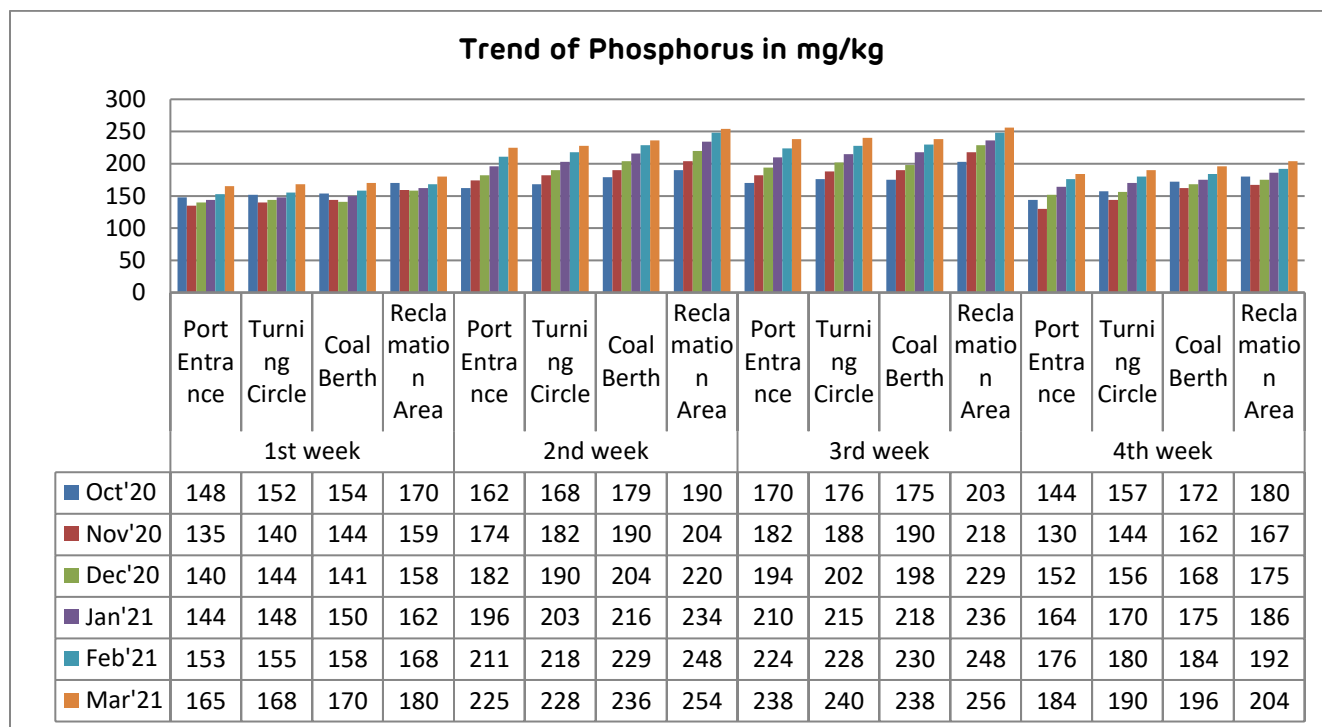
pH in Marine sediment varied between 7.28 to 7.66



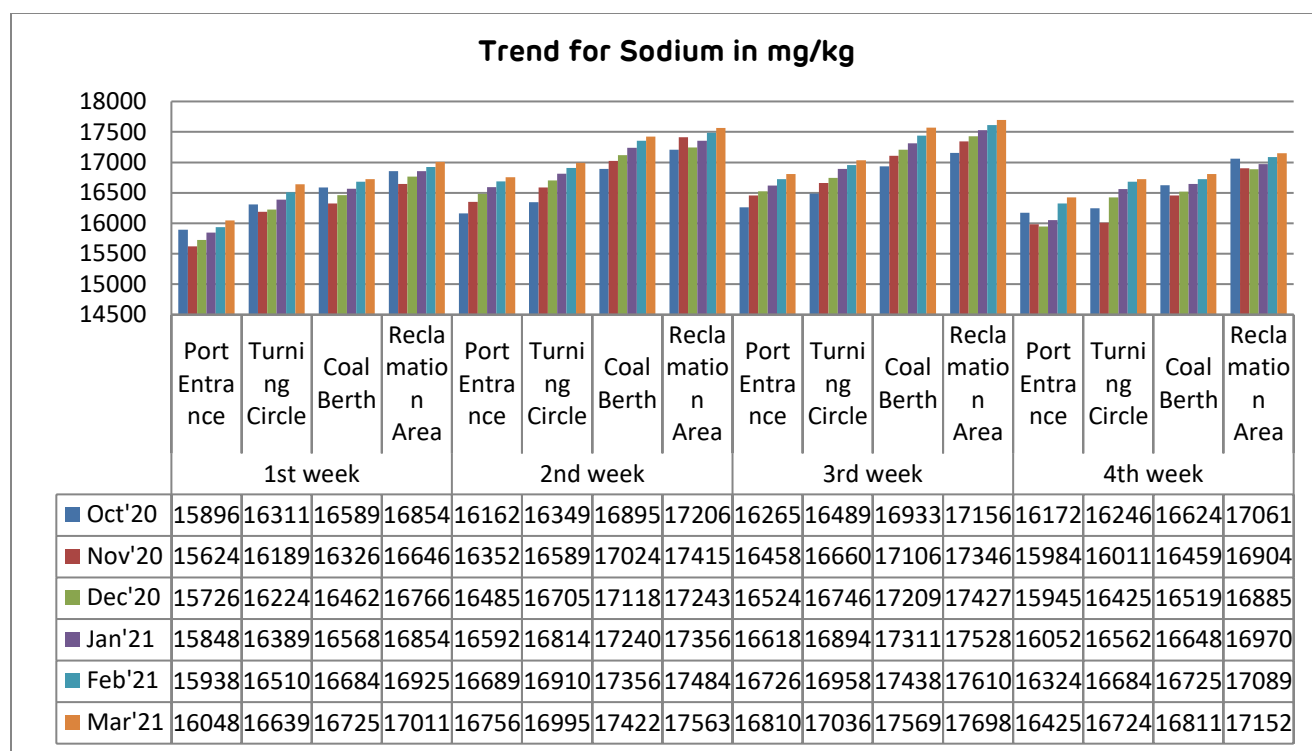
Organic Matter in Marine sediment varied between 1.12 to 1.55 %



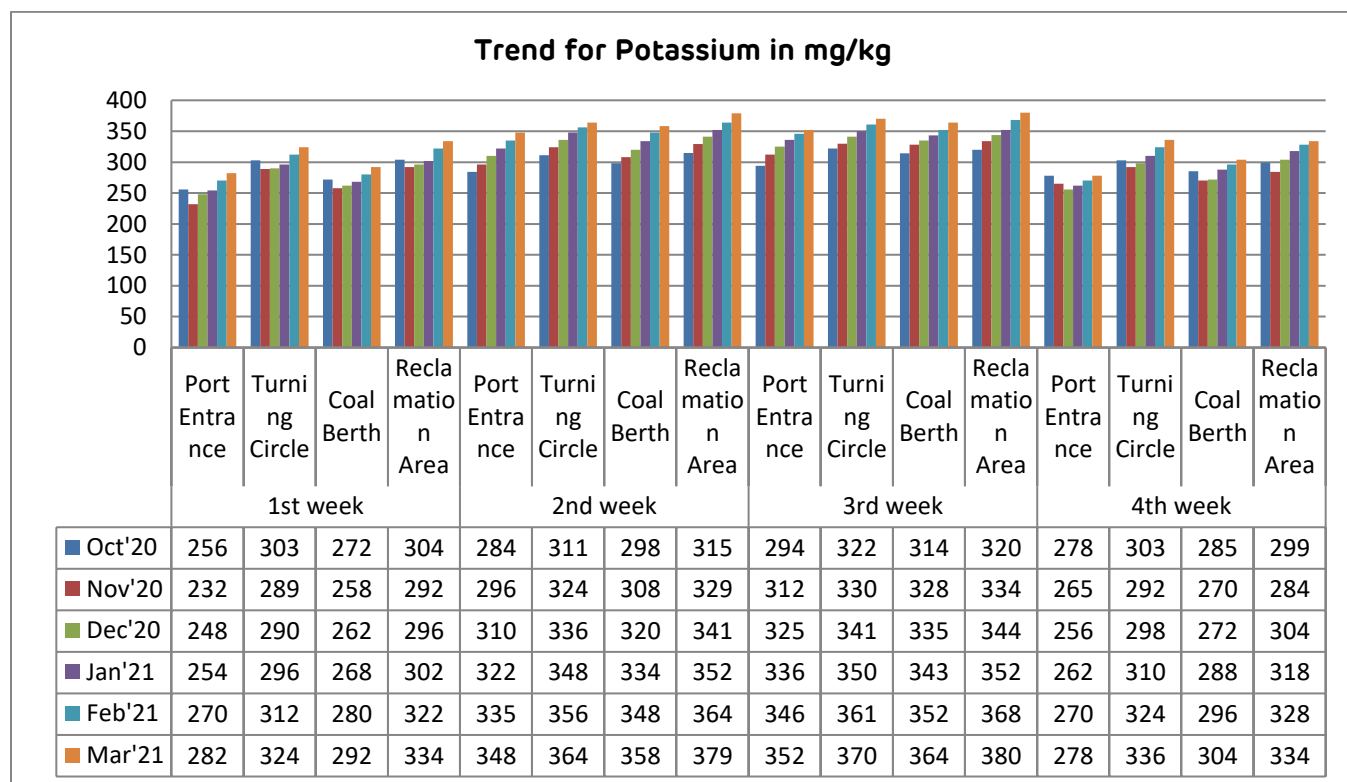
Nitrogen In Marine sediment varied between 206 to 336 mg/kg



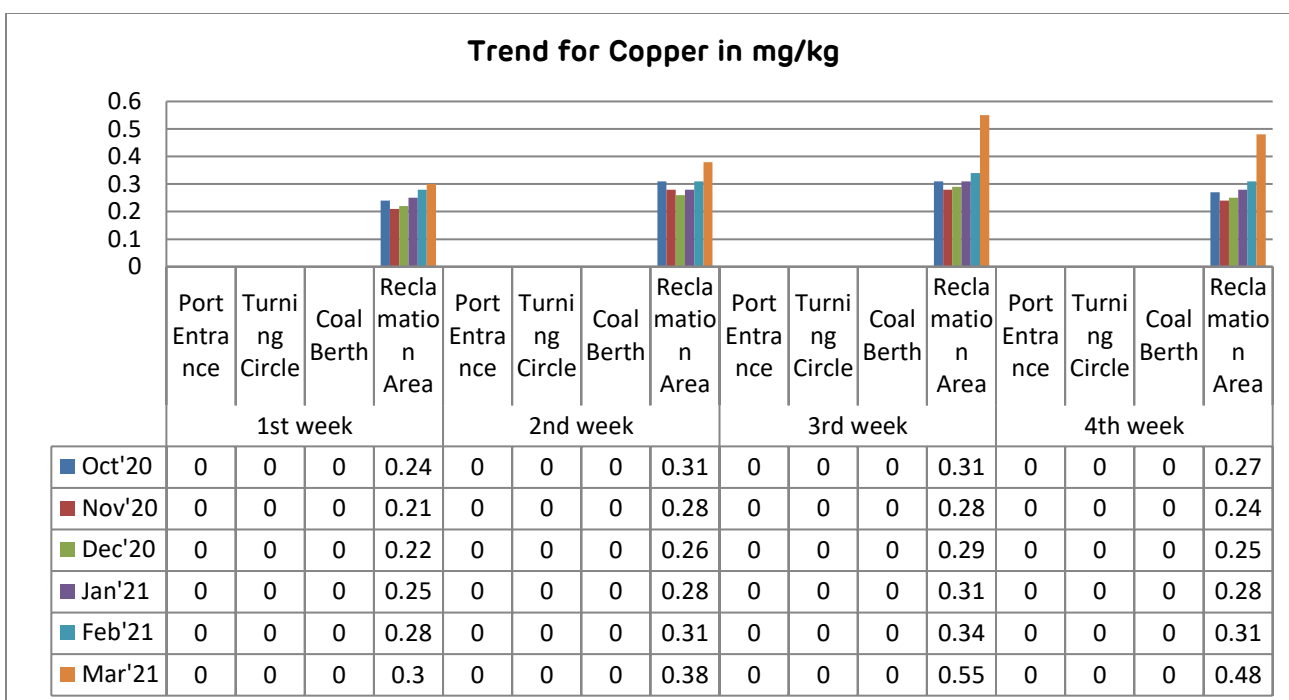
Phosphorous in Marine sediment varied between 130 to 256 mg/kg



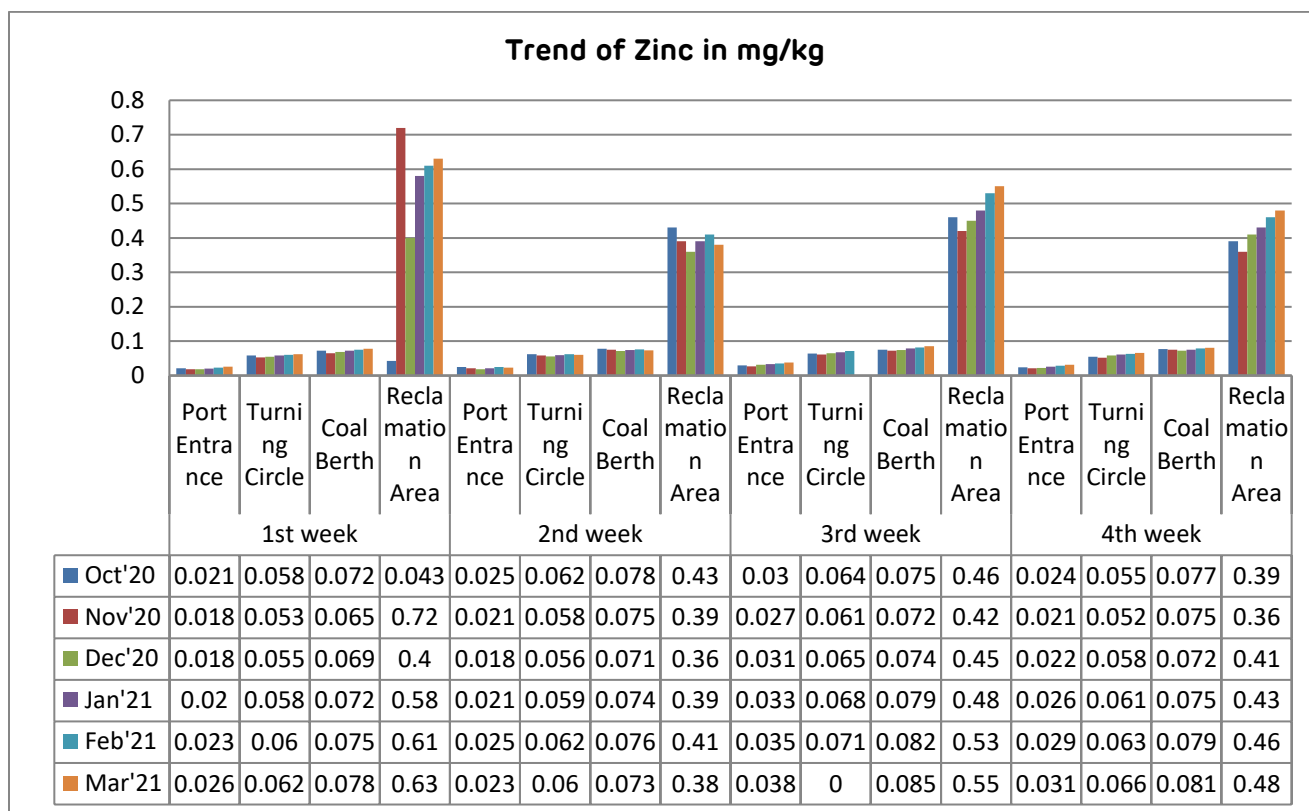
Sodium in Marine sediment varied between 15624 to 17698 mg/kg



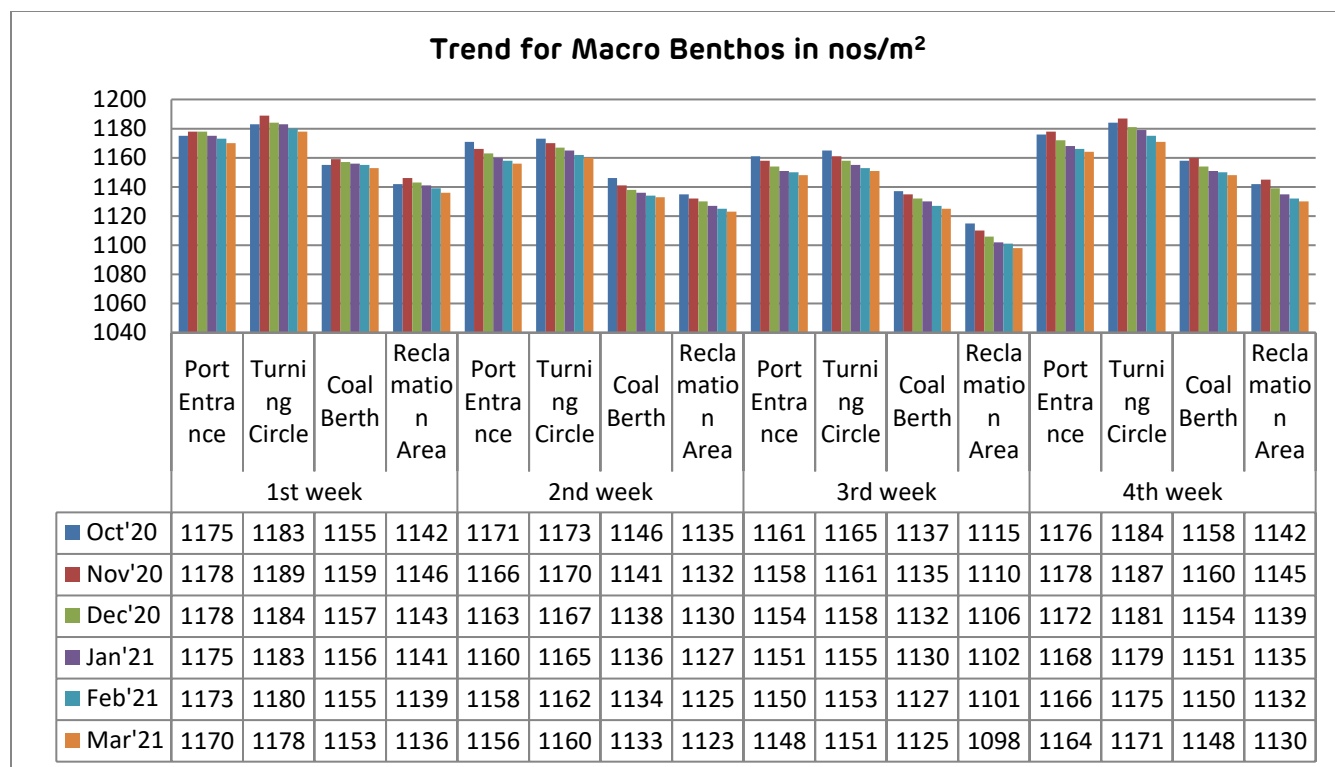
Potassium in Marine sediment varied between 232 to 380 mg/kg



Copper in Marine Sediment varied between 0.21 to 0.55 mg/kg



Zinc in Marine sediment varied between 0.018 to 0.72 mg/kg



Macro Benthos in Marine Sediment varied between 1098 to 1189 nos/m²

Summary of marine sediments quality results for Six months of Oct'20 - Mar'21

- Organic matter - value are in the range 1.12 to 1.55 %
- Nitrogen - value are in the range 206 to 336 mg/kg
- Phosphorous - value are in the range 130 to 256 mg/kg
- Sodium - value are in the range 15624 to 17698 mg/kg
- Potassium - value are in the range 232 to 380 mg/kg
- Copper - value are in the range 0.21 to 0.55 mg/kg
- Zinc - value are in the range 0.018 to 0.72 mg/kg
- Macro Benthos - value are in the range 1098 to 11189 nos/m²

3.6 GROUND WATER QUALITY

3.6.1 Sampling Locations

Ground Water sampling is carried out once in six months at four locations in and around the Port. The Ground water sampling locations are listed below.

GROUND WATER QUALITY MONITORING LOCATIONS

Location Code	Location
GW1	Port Site
GW2	South Side of the Port
GW3	Gopalapuram Village
GW4	Krishnapatnam Village

TEST REPORT OF GROUND WATER SAMPLES**DATE OF COLLECTION : 18-11-2020**

S. No.	Parameter	Unit	Port Site (Bore Well)	Krishnapatnam Village	South Side of the Port	Gopalpuram Village	IS: 10500-2012 Specification
1.	pH	--	7.24	7.50	7.58	7.38	6.5 – 8.5
2	Electrical Conductivity	µmhos	1552	850	1254	879	-
3	TDS	mg/l	962	527	778	535	500
4	Total Alkalinity as CaCO ₃	mg/l	252	212	348	192	200
5	Chlorides as Cl ⁻	mg/l	424	192	356	189	250
6	Sodium	mg/l	166	86.2	182	89.5	-
7	Potassium	mg/l	42	16	38	16	-
8	Fluorides as F ⁻	mg/l	0.64	0.49	0.76	0.46	1.0
9	Nitrates as NO ₃ ⁻	mg/l	6.72	6.18	4.88	4.98	45
10	Cyanide as CN	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	0.05
11	Total Hardness as CaCO ₃	mg/l	134	78.2	112	91.5	200
12	Salinity	ppt	0.075	0.032	0.062	0.051	-
13	Sulphates as SO ₄ ²⁻	mg/l	118	66.3	75.6	80.1	200
14	COD	mg/l	< 10.0	< 10.0	< 10.0	< 10.0	-
15	Mercury as Hg	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	0.001
16	Cadmium as Cd	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	0.003
17	Arsenic as As	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	0.01
18	Selenium	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	-
19	Iron as Fe	mg/l	0.06	0.07	0.14	0.06	0.3
20	Lead as Pb	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	0.01
21	Zinc as Zn	mg/l	0.10	0.05	0.08	0.11	5.0
22	Chromium as Cr ⁶⁺	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	0.05
23	Total Coliforms	CFU/ml	Not Detected	Not Detected	Not Detected	Not Detected	Shall not be detected in 100ml
24	Fecal Coliforms	CFU/ml	Not Detected	Not Detected	Not Detected	Not Detected	Shall not be detected in 100ml

Note: . All the above parameters have been tested as per APHA 23rd Edition, 2017.

3.7 SOIL QUALITY

For studying soil profile of the region, sampling locations are selected to assess the existing soil characteristics in and around the port area representing various land use conditions.

3.7.1 Sampling Locations

A total two number of samples collected from the sampling sites. The details of the soil sampling locations are given below.

The soil samples are collected and analyzed once in six months.

SOIL QUALITY MONITORING LOCATIONS

Location Code	Name of the Location
S1	Storage area towards west Buckingham Canal
S2	Storage Area at Port

TEST REPORT OF SOIL SAMPLES**DATE OF COLLECTION** : 18-11-2020

S. NO.	PARAMETER	UNIT	S1	S2
1.	pH(1:5)	--	7.34	7.40
2.	EC(1:5)	µmhos	668	705
3.	Texture			
	a. Sand	%	75.0	73.8
	b. Silt	%	12.8	13.9
	c. Clay	%	12.2	12.3
4	Available Nitrogen	kg/ha	224	240
5	Available Phosphorus	kg/ha	11	12
6	Available Potassium	kg/ha	486	502
7	Exchangeable Sodium	mg/kg	184	198
8	Exchangeable Calcium	mg/kg	119	152
9	Exchangeable Magnesium	mg/kg	32	40
10	SAR (SAR)	-	1.2	1.5
11	Water Soluble Chlorides	mg/kg	148	159
12	Organic Carbon	%	0.38	0.45
13	Lead	mg/kg	7.4	6.1
14	Cadmium	mg/kg	0.14	0.11
15	Copper	mg/kg	6.5	7.0
16	Zinc	mg/kg	6.8	7.4

3.8 STP INLET AND OUTLET ANALYSIS

Frequency: STP Inlet and Outlet samples are collected monthly once.

TEST REPORT OF STP INLET

S.No	Parameter	Unit	Oct'20	Nov'20	Dec'20	Jan'21	Feb'21	Mar'21
1	pH	-	6.85	6.92	6.98	7.52	7.36	6.98
2	Total Solids	mg/l	2011	1888	1936	2142	2008	2114
3	Total Dissolved Solids	mg/l	1836	1720	1762	1950	1826	1906
4	Total Suspended Solids	mg/l	175	168	174	192	182	208
5	COD	mg/l	270	256	284	268	292	278
6	BOD 3day 27°C	mg/l	101	98.0	103	104	110	102
7	Oil & Grease	mg/l	5.1	4.8	5.0	4.8	5.1	4.7

TEST REPORT OF STP OUTLET

S.No	Parameter	Unit	Oct'20	Nov'20	Dec'20	Jan'21	Feb'21	March'21
1	pH	-	7.20	7.14	7.18	7.68	7.26	7.62
2	Total Solids	mg/l	1148	1060	1110	1288	1216	1256
3	Total Dissolved Solids	mg/l	1132	1048	1092	1262	1194	1218
4	Total Suspended Solids	mg/l	16	12.0	18.0	26.0	22.0	38.0
5	COD	mg/l	76.2	68.6	80.6	96.5	85.6	79.2
6	BOD 3day 27°C	mg/l	25.0	23.0	25.0	27.0	24.0	22.0
7	Oil & Grease	mg/l	<1.0	<1.0	<1.0	1.2	1.1	1.0

4.0 STACK EMISSION MONITORING

Sampling of Flue gas emissions of DG Sets was done and their emissions were determined. The Detailed report has been enclosed here.

S. No	DG Capacity (kVA)	Location	S. No	DG Capacity (kVA)	Location
1	380	Admin building	14	250	Dredger
2	250	SS-2	15	250	MCG
3	320	Admin Block	16	250	Garage
4	82.5	Sea Shell	17	250	CG-1
5	250	Dredger	18	500	CT Yard
6	250	South Port	19	250	CT Yard
7	125	CV Block	20	125	DSS1
8	250	R Block	21	160	Batching Plant
9	160	SSI	22	160	NPS
10	125	MUSS	23	100	KPCT Scanner
11	320	South Port	24	500	CT Yard
12	250	Batching Plant	25	125	DSS14
13	250	TTT			

EMISSION RATE

S.NO.	PARAMETER	UNIT	METHOD	RESULT				
				1	2	3	4	5
1.	Particulate Matter – PM	g/kw-hr	IS:11255-P-1	0.08	0.15	0.10	0.15	0.08
2.	Oxides of Nitrogen – NOx	g/kw-hr	IS:11255-P-2	1.25	1.63	1.26	1.17	0.68
3.	Carbon Monoxide – CO	g/kw-hr	IS:11255-P-7	0.55	0.71	0.58	0.51	0.32
4.	Hydrocarbons - HC	g/kw-hr	IS:11255	0.18	0.13	0.11	0.16	0.07

S.NO.	PARAMETER	UNIT	METHOD	RESULT				
				6	7	8	9	10
1.	Particulate Matter – PM	g/kw-hr	IS:11255-P-1	0.12	0.14	0.10	0.11	0.11
2.	Oxides of Nitrogen – NOx	g/kw-hr	IS:11255-P-2	1.06	1.16	1.28	1.30	1.17
3.	Carbon Monoxide – CO	g/kw-hr	IS:11255-P-7	0.47	0.48	0.63	0.55	0.41
4.	Hydrocarbons - HC	g/kw-hr	IS:11255	0.14	0.13	0.16	0.12	0.07

S.NO.	PARAMETER	UNIT	METHOD	RESULT				
				11	12	13	14	15
1.	Particulate Matter – PM	g/kw-hr	IS:11255-P-1	0.14	0.17	0.14	0.07	0.15
2.	Oxides of Nitrogen – NOx	g/kw-hr	IS:11255-P-2	1.12	1.28	1.31	1.13	1.22
3.	Carbon Monoxide – CO	g/kw-hr	IS:11255-P-7	0.51	0.49	0.54	0.45	0.49
4.	Hydrocarbons - HC	g/kw-hr	IS:11255	0.05	0.15	0.10	0.11	0.18

S.NO.	PARAMETER	UNIT	METHOD	RESULT				
				16	17	18	19	20
1.	Particulate Matter – PM	g/kw-hr	IS:11255-P-1	0.11	0.13	0.15	0.12	0.10
2.	Oxides of Nitrogen – NOx	g/kw-hr	IS:11255-P-2	1.55	1.15	1.46	1.30	1.18
3.	Carbon Monoxide – CO	g/kw-hr	IS:11255-P-7	0.56	0.44	0.58	0.44	0.57
4.	Hydrocarbons - HC	g/kw-hr	IS:11255	0.06	0.08	0.12	0.08	0.09

S.NO.	PARAMETER	UNIT	METHOD	RESULT				
				21	22	23	24	25
1.	Particulate Matter – PM	g/kw-hr	IS:11255-P-1	0.13	0.13	0.14	0.15	0.12
2.	Oxides of Nitrogen – NOx	g/kw-hr	IS:11255-P-2	1.41	1.24	1.25	1.67	1.31
3.	Carbon Monoxide – CO	g/kw-hr	IS:11255-P-7	0.53	0.50	0.48	0.51	0.50
4.	Hydrocarbons - HC	g/kw-hr	IS:11255	0.11	0.10	0.13	0.12	0.05

PHOTOGRAPHS

AMBIENT AIR QUALITY SAMPLING LOCATIONS

Thamminipatnam village	Gopalapuram village
	
Chalivendram	Krishnapatnam village
	

AMBIENT AIR QUALITY SAMPLING LOCATIONS

New Light House	Zero Point
	
Amenities Complex (CVR)	
	

WATER SAMPLING	SEDIMENT SAMPLING
	
PHYTOPLANKTON SAMPLING	NOISE MONITORING
	

ANNEXURE-2

EMP matrix during Construction Phase

S. No	Project Activity	Potential Risks and Impacts	Recommended Mitigation Measures	Frequency of Measurement/ Monitoring	Responsibility of Mitigation Measures	Mitigation Measures Implementation Period	Any other
<u>Land Environment</u>							
1	Excavation for civil structures such as operational buildings and storage areas	Disposal of excavated soil	Excavated soil will be used for back- filling the excavated pits after completion of concreting and the balance quantity will be used for filling low-lying areas within Port Premises	After construction works complete	Main/ Sub- Contractor	During Soil Excavation Period	Physical Supervision
<u>Air Environment</u>							
2	Excavation and Civil Foundation Works	Dust emission and Air Pollution	Ambient Air Quality Monitoring near project site	Once in a month and random sampling will be done- 3 locations	AKPL/Main Contractor	Construction Period	Ambient Air Quality Monitoring conducted through NABL Accredited Laboratory

[illegible]

S. No	Project Activity	Potential Risks and Impacts	Recommended Mitigation Measures	Frequency of Measurement/ Monitoring	Responsibility of Mitigation Measures	Mitigation Measures Implementation Period	Any other
6	Dredging/excavation for construction of berths	Salinity ingress in the groundwater	Envisaged berth construction with diaphragm wall structures shall prevent saturation of soil to incoming seawater	Half-Yearly - 4 locations	AKPL/Main Contractor	Construction Period	Groundwater quality in the surrounding land environment to be measured.
<u>Soil Environment</u>							
7	Dredging/excavation for construction of berths, Reclamation	Salinity ingress in the soil	Soil used for reclamation shall be tested. Envisaged berth construction with diaphragm wall structures shall prevent saturation of soil	Dredge/excavated soil shall be tested for contamination before using it for reclamation. Half-Yearly- 2 locations adjacent to the reclaimed land	AKPL/Main Contractor	Construction Period	Soil quality in the surrounding land environment to be measured.
<u>Waste Management</u>							
8	Civil and Mechanical Works	Concrete Waste, Metal Scrap Waste and Waste Management	Concrete Waste shall be recycled or disposed to Landfill. Recyclable Scrap Waste shall be disposed to recyclers	Daily	Main Contractor	Construction Period	Log Book to be maintained for Waste Disposal
<u>Marine Environment</u>							
9	Drilling of piles for construction of berths	Increase of turbidity, TSS and heavy metal concentration	Sheet Piling around the drilling locations	Turbidity, Marine water quality and sediment quality - Weekly-4 locations	Main Contractor	Entire Construction Period	NABL accredited Lab shall be engaged for Monitoring

S. No	Project Activity	Potential Risks and Impacts	Recommended Mitigation Measures	Frequency of Measurement/ Monitoring	Responsibility of Mitigation Measures	Mitigation Measures Implementation Period	Any other
							Sea water quality
10	Capital Dredging of 60 Million m ³	TSS and Turbidity of Marine Water Quality	Silt Curtain and Boom shall be deployed	Pre Dredging, Capital Dredging Period and Post dredging - 4 locations	AKPL	At the time of Dredging Schedule	NABL accredited Lab shall be engaged for Monitoring Sea water quality
11	Oil Spill from Construction Equipment during Construction activities in marine environment	Oil spill on the shore and seawater	Spill absorbing material shall be made available at project site. Oil spill collection tray shall be provided at potential oil leak source if any Oil storage area shall be provided away from the marine waters.	Daily	Main Contractor	Entire Construction Period	Log Book maintained for Oil Spill if any
Marine Ecological Environment							
12	Capital Dredging of 60 Million m ³	Migration of marine species and loss of Benthic species	Silt Curtains/containment bunds for reclamation areas and Boom Dispersion Equipment	Weekly monitoring- locations- 4	AKPL	Construction Period	NABL accredited Lab shall be engaged for Monitoring Sea water quality

S. No	Project Activity	Potential Risks and Impacts	Recommended Mitigation Measures	Frequency of Measurement/ Monitoring	Responsibility of Mitigation Measures	Mitigation Measures Implementation Period	Any other
13	Offshore disposal of dredge spoil	Increase in turbidity, change in bed contour and shoreline	Adequate interval shall be maintained for one cycle of disposal to other.	Pre dredging and Post dredging monitoring at the disposal site for 3 locations and 1 location at clear water for comparison.	AKPL	Construction Period	NABL accredited Lab shall be engaged

EMP matrix during Operation Phase

S. No	Project Activity	Potential Risks and Impacts	Recommended Mitigation Measures	Frequency of Measurement/ Monitoring	Responsibility of Mitigation Measures	Mitigation Measures Implementation Period	Any other
Air Environment							
1	Cargo Handling	Fugitive Dust Emissions – Affects Air Quality	Mechanization of Material Handling System from Berths to Coal Stock Piles. Dust Suppression and Dust Containment Systems shall be installed at critical locations such as Unloading and Coal Stock Piles area and Truck loading points	Twice a Week as per NAAQ Standards of CPCB- 7 locations	AKPL	Operation Period	NABL Accredited Lab shall be engaged
2	Vehicular Movement within Port Premises	Gaseous Emission – Affect Air Quality	Emission norms prescribed by Transport Authority of State Government	Twice a Week as per NAAQ Standards of CPCB- 7 locations	AKPL	Operation Period	NABL Accredited Lab shall be engaged
Noise Environment							
3	Vehicular Movement within Port Premises	Ambient Noise Nuisance	Speed Limit of 30 KMPH shall be prescribed	Monthly-locations 7	AKPL	Operation Period	Speed Governor on Vehicle shall be installed
Waste Management							

[illegible]

S. No	Project Activity	Potential Risks and Impacts	Recommended Mitigation Measures	Frequency of Measurement/ Monitoring	Responsibility of Mitigation Measures	Mitigation Measures Implementation Period	Any other
7	Green Belt Development	Positive Impact to control Dust and Noise Pollution	Greenbelt of width 20 m is proposed around coal stockpiles and 50 m width along the port boundary	Monthly- Random sampling by quadrat survey - 3 locations for every 10 Ha.	AKPL	Operation Period	Forests and Environment officers shall be consulted
<u>Mangrove Management</u>							
8	Monitoring/conservation of Existing mangroves	Positive impact on surrounding ecology	The mangroves shall be monitored for growth and survival	Bi-yearly- Random sampling by quadrat survey	AKPL	Operation Period	Forests and MSSRF shall be consulted.
<u>Marine Ecological Monitoring</u>							
9	Cargo Handling at Berth – Dust Deposition of Seawater Surface	Affects the primary productivity (Plantain and Algae)	Closed Conveyor and Hopper at Feeding point	Weekly- 3 locations within the port and 1 location in the approach channel	AKPL	Operation Period	NABL accredited Lab shall be engaged
<u>Marine Water Environment</u>							
10	Cargo Handling at Berth – Dust Deposition of Seawater Surface	Affect the water quality	Closed Conveyor and Hopper at Feeding point	Weekly- 3 locations within the port and 1 location in the approach channel	AKPL	Operation Period	NABL accredited Lab shall be engaged
11	Maintenance Dredging	Affect the water quality and sediment quality	Disposal of dredged material at the identified location in an even spread.	Monthly - at the disposal site for 4 locations and 1 location at clear water for comparison.	AKPL	Operation Period	NABL accredited Lab shall be engaged

ANNEXURE - 3



भारत सरकार

Government of India

वाणिज्य और उद्योग मंत्रालय

Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसे)

Petroleum & Explosives Safety Organisation (PESO)

डोर नंबर 7-20-13, किरलामपुडी लेआउट

विशाखापट्टनम- 530017

Door No. 7-20-13, Kirlampudi Layout,

Visakhapatnam - 530017

E-mail : dyccevizag@explosives.gov.in

Phone/Fax No : 0891-272257

संख्या /No. : P/SC/AP/14/5544 (P219323)

दिनांक /Dated : 15/02/2019

सेवा में /To,

M/S KRISHNAPATNAM PORT COMPANY LTD,
P.O.Bag No.1,
Muthukur Mandal,,
Nellore,
District: NELLORE,
State: Andhra Pradesh
PIN: 524344

5 MAR 2019

विषय /Sub : Plot No, S.No.440,442 & 444, NA, Krishnapatnam, Muthukur mandal, District: NELLORE, State: Andhra Pradesh, PIN: 999999 में स्थित
विद्यमान पेट्रोलियम वर्ग A,B Retail Outlet की अनुज्ञप्ति संख्या P/SC/AP/14/5544 (P219323) - नवीकरण के संदर्भ में ।
Existing Petroleum Class A,B Retail Outlet at Plot No, S.No.440,442 & 444, NA, Krishnapatnam, Muthukur mandal, District: NELLORE,
State: Andhra Pradesh, PIN: 999999 - Licence No. P/SC/AP/14/5544 (P219323) - Reg Renewal of Licence.

महोदय /Sir
(s),

कृपया आपके उपर्युक्त विषय से संबंधित पत्र संख्या X दिनांक 19/11/2018 का संदर्भ ग्रहण करें ।

Please refer to your letter No. X dated 19/11/2018 on the subject.

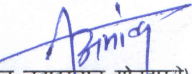
अनुज्ञप्ति सं P/SC/AP/14/5544 (P219323) दिनांक 01/08/2011 दिनांक 31/12/2021 तक नवीनीकृत कर लौटाई जा रही हैं ।
Licence No. P/SC/AP/14/5544 (P219323) dated 01/08/2011 is returned herewith duly renewed upto 31/12/2021.

कृपया पेट्रोलियम नियम, 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें । अनुज्ञप्ति के नवीकरण हेतु समस्त दस्तावेजों को दिनांक 31/12/2021 या उससे पहले इस कार्यालय में प्रस्तुत करें ।

Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence so as to reach this office on or before 31/12/2021.

कृपया पावती दें । Please acknowledge the receipt.

भवदीय /Yours faithfully,


(अमोल जवाहरलाल सोनबार्से)
(Amol Jawahar Lal Sonbarse))

Dy. Controller of Explosives
कृते उप मुख्य विस्फोटक नियंत्रक
For Dy. Chief Controller of Explosives
विशाखापट्टनम/Visakhapatnam

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : <http://peso.gov.in> देखें)
(For more information regarding status, fees and other details please visit our website: <http://peso.gov.in>)

प्ररूप XIV
(प्रथम अनुसूची का अनुच्छेद 5 देखिए)
FORM XIV
(see Article 5 of the First Schedule)



मोटर वाहनों में ईंधन डालने के लिए पम्प आउटफिट के संबंध में टैंक या टैंकों में पेट्रोलियम भंडारण के लिए अनुज्ञप्ति
LICENCE TO STORE PETROLEUM IN TANK/S IN CONNECTION WITH PUMP OUTFIT FOR FUELING MOTOR CONVEYANCES

अनुज्ञप्ति सं. (Licence No.) : P/SC/AP/14/5544(P219323)

फीस रूप (Fee Rs.) 18000/- per year

पेट्रोलियम अधिनियम, 1934 के उपबंधों और उसके अधीन बनाए गए नियमों तथा इस अनुज्ञप्ति की अतिरिक्त शर्तों के अधीन रहते हुए 20.00 KL of Petroleum class A and 210.00 KL of Petroleum class B को टैंक/टैंकों में भण्डारण मात्र के लिए M/S KRISHNAPATNAM PORT COMPANY LTD, P.O.Bag No.1, Muthukur Mandal,, Nellore, District: NELLORE, State: Andhra Pradesh, PIN: 524344 को नीचे वर्णित अनुज्ञप्त परिसरों में जो कि इससे उपबद्ध नक्शा संख्या P/SC/AP/14/5544(P219323) तारीख 01/08/2011 में दिखाया गया है, के लिए विधिमान्य अनुज्ञप्ति अनुदत्त की जाती है।

Licence is hereby granted to M/S KRISHNAPATNAM PORT COMPANY LTD, P.O.Bag No.1, Muthukur Mandal,, Nellore, District: NELLORE, State: Andhra Pradesh, PIN: 524344 valid only for the storage of 20.00 KL of Petroleum class A and 210.00 KL of Petroleum class B in tank/s in the licensed premises described below and shown on the plan no: P/SC/AP/14/5544(P219323) dated 01/08/2011 attached hereto subject to the provisions of the Petroleum Act, 1934 and the rule made thereunder and to the further conditions of this Licence.

यह अनुज्ञप्ति 31st day of December 2021 तक विधिमान्य रहेगी।
The Licence shall remain in force till the 31st day of December 2021

July 5, 2010

For Jt. Chief Controller of Explosives
SC, Chennai

1). Amendment dated - 01/08/2011

अनुज्ञप्त परिसरों का विवरण और अवस्थान
DESCRIPTION AND LOCATION OF THE LICENSED PREMISES

अनुज्ञप्त परिसर जिसकी सीमाएं संलग्न नक्शे में दिखाई गई हैं Plot No: S.No.440,442 & 444, NA, Krishnapatnam, Muthukur mandal, District: NELLORE, State: Andhra Pradesh, PIN: 999999 में स्थित हैं और उसमें निम्नलिखित सम्मिलित हैं:

The licensed premises, the boundaries of which are shown in the attached plan, are situated at Plot No: S.No.440,442 & 444, NA, Krishnapatnam, Muthukur mandal, District: NELLORE, State: Andhra Pradesh, PIN: 999999 and consist of:

क पेट्रोलियम वर्ग क परिसर के लिए 20.00 किलोलिटर क्षमता के/क्रमशः 1 क्षमता के भूमिगत गैस टाईट टैंक, जो विद्युतचालित/हस्तचालित 2 डिस्पेंसिंग पम्पो से जुड़े हुए हैं।

a 1 number(s) underground gas tight tanks of capacity 20.00 kilolitres respectively of petroleum Class A connected with 2 number(s) electrically/manually operated dispensing pump(s)

ख पेट्रोलियम वर्ग ख/ग परिसर के लिए 70.00+ 70.00+ 70.00 किलोलिटर क्षमता के/क्रमशः 3 क्षमता के भूमिगत गैस टाईट टैंक, जो विद्युतचालित/हस्तचालित 5 डिस्पेंसिंग पम्पो से जुड़े हुए हैं।

b 3 number(s) underground gas tight tanks of capacity 70.00+ 70.00+ 70.00 kilolitres respectively of petroleum Class B connected with 5 number(s) electrically/manually operated dispensing pump(s).

ग एक विक्रय कक्ष/कियोस्क

c A sales room/kiosk

घ सर्विस सम्बन्धी सुविधाएं जिनमें Kiosk, store, Elec. Room सम्मिलित हैं।

d Servicing facilities consisting of Kiosk, store, Elec. Room As per attached plan

पेज सं. 2

अनुज्ञप्ति संख्या-(Licence No.) P/SC/AP/14/5544 (P219323)

नवीनीकरण के पृष्ठांकन के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

पेट्रोलियम अधिनियम, १९३४ के उपबन्धों या उनके अधीन बनाए गए नियमों या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फिस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी।
 This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence.

1).	11/02/2013	31/12/2015	Sd/- Basudev Basak Controller of Explosives For Dy. Chief Controller of Explosives Secunderabad
2).	03/12/2015	31/12/2018	Sd/- Abdul Muttalib Controller of Explosives For Dy. Chief Controller of Explosives Visakhapatnam
3).	15/02/2019	31/12/2021	Amol Jawaharlal Sonbarse Dy. Controller of Explosives For Dy. Chief Controller of Explosives Visakhapatnam उप मुख्य निरीक्षक, विशाखपट्टणम Dy. Chief Controller of Explosives, Visakhapatnam

यदि अनुज्ञप्ति परिसर इसमें उपाबद्ध विवरण और शर्तों के अनुरूप नहीं पाए जाते हैं और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है उनमें से किसी का उल्लंघन होने की दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्तिधारी प्रथम अपराध के लिए साधारण कारावास से, जो एक मास तक हो सकता है, या जुर्माने से, जो एक हजार रुपये तक हो सकता है, या दोनों से, और प्रत्येक पश्चातवर्ती अपराध के लिए साधारण कारावास से जो तीन मास तक हो सकता है, या जुर्माने से, जो पांच हजार रुपये तक हो सकता है, या दोनों से, दण्डनीय होगा।

This licence is liable to be cancelled if the licensed premises are not found conforming to the description given on the approved plan attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable for the first offence with simple imprisonment which may be extend to one month, or with fine which may extend to one thousand rupees, or with both and for every subsequent offence with simple imprisonment which may extend to three months, or with fine which may extend to five thousand rupees or with both.

M/s Krishnapatnam Port Company Ltd. Regarding Environmental and CRZ Clearance of Phase-III Expansion

PUBLIC NOTICE

This is to bring to the public notice that M/s Krishnapatnam Port Company Ltd. has been accorded Environmental Clearance (EC) for Development of Phase-III Expansion with supporting utilities and infrastructure facilities by the Ministry of Environment Forest and Climate Change (MoEF&CC), Indira Paryavaran Bhavan, Jor Bagh Road, New Delhi 110003, vide File No.: 10-18/2016-IA.III, dated 11.01.2021. A copy of the above mentioned clearance letter along with the Environmental Conditions and safeguard is published here and is available with Andhra Pradesh Pollution Control Board. This may also be seen on the website of Ministry of Environment, Forest and Climate Change at <https://www.moef.nic.in> and on website of <http://krishnapatnamport.com> in Environmental Information section.

File No.: 10-18/2016-IA.III

Proposal No.: IA/AP/MIS/566/2009

Government of India, Ministry of Environment, Forest and Climate Change (Impact Assessment Division), Indira Paryavaran Bhawan, Jor Bagh Road, Ali Ganj, New Delhi - 110 003.

Dated: 11th January, 2021

To: The Director and Chief Executive Officer, M/s Krishnapatnam Port Company Ltd, 1st Floor, 48-9-17, Dwarakanagar, Visakhapatnam - 530 016, Andhra Pradesh.

Subject: Expansion of Krishnapatnam Port (Phase-III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd - Environmental and CRZ Clearance.

Sir,

This has reference to your online proposal to this Ministry on 05th June 2020 regarding Environmental and CRZ Clearance for Expansion of Krishnapatnam Port (Phase-III) at SPSR Nellore District, Andhra Pradesh by Mis Krishnapatnam Port Company Ltd.

2. Krishnapatnam Port located at 14°15'10" N Latitude and 80°08' 05" E Longitude in Sri Potti Sri Ramulu (SPSR) Nellore District, AP is developed by Krishnapatnam Port Company Ltd (KPCL) as an all-weather, deep water, multi-purpose port. The Phase I & II developments of Krishnapatnam Port comprising of 12 berths out of 17 approved berths with required marine infrastructure were developed in a designated land area of Ha.1240 (Ac. 3064) to cater to 68 MTPA of various types of cargo plus 2.0 MTEUsPA of container traffic. To cater to future traffic needs, KPCL has proposed to take up Phase III expansion of the port.
3. The proposed phase-III project comprising of 16 Berths including 3 jetties for liquid cargo and 3 SBM's in deep waters within Port Limits to cater 150.2 MTPA of various types of cargo plus 1.1 MTEUsPA of container cargo. The proposed expansion entail 60 million cu m of dredging in soft soil, utilize 26 million cum of dredged sand for reclamation of low lying areas of port, stock pile 2 million cu m on the coast north of north breakwater for long term coastal protection as recommended by NIOT and disposal of balance 32 million cu m of dredged spoil in the identified dredge disposal area of 56 Km2 beyond (-) 20 m contour. In view of the severe floods that have occurred in the Nellore region during 2015, in order to improve the discharge through Kandaleru Creek the GoAP also suggested cutting through the Islands in the Creek. The Masterplan development as well as the proposed Phase-III expansion of Krishnapatnam Port envisaged training the meanders of the Kandaleru Creek by forming a straight cut across the sand bar existing in the Kandaleru Creek within the port limits and develop the west dock with berths on both sides of the straight cut and reclaim the erstwhile meanders of the creek.
4. The proposed proposal fall under 7(e), Category A as per EIA notification 2006. The overall cost of the project is Rs. 907000 Lakhs. The Term of Reference (ToR) was issued vide letter No. 10-18/2016-IA.III dated 4th May 2016. Amendment in TOR was done vide Letter No. of even number dated 24th November 2017. Further amendment in TOR was done vide Letter No. of even number dated 27th August 2018. Public hearing was exempted as per the ToR amendment vide Letter No.10-18/2016-IA.III dated 24th November 2017. However, it was recommended that the Project Proponent shall address the compliance of there commendations made in the Public Hearing 2009 and submit the same as separate document attached to EIA report.
5. As per the commitments made during the public hearing 100 m green belt has been developed along the boundary of the port. Further as desired by APPCB, 191.5 Ha of green belt has been developed. Dedicated 4 lane port road connectivity has been developed to NH-16 by GoAP. Further, as requested by local public, Krishnapatnam Port is undertaking environmental protection measures to combat air pollution. Total no of village population working directly and indirectly in the port and port based industries are 10,500. Further KPCL has adopted 33 surrounding villages and is carrying out necessary developmental activities.
6. Total area of the proposed project is 1094 Ha (Ac.2703). The project does not involve any land acquisition and R&R as the proposed project activities will be developed within the exiting designated Krishnapatnam port facility. There is no diversion of forest land. The patches of mangroves around 7,128 Ha of area is falling in proposed Phase-III development area will be protected. There is no Eco-Sensitive Zone (ESZ) / Protected Areas such as National Parks, Sanctuaries and Tiger Reserves etc., within the 10 km radius of the project area.
7. The proposed project site is located in the coastal area and attracts CRZ Notification, 2011. The CRZ Area details of the proposed project activities as per the revised layout of the Phase-III expansion of KPCL has been provided by Institute of Remote Sensing, Anna University, which is an authorized agency for CRZ map preparation. The layout superimposed on CRZ map was done at 1:4000 scales. The proposed project was appraised by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) and the recommendation was obtained vide Letter No. 202/CRZ/IND/201930 dated 21.05.2020.
8. The project site is located on the east coast alongside Bay of Bengal. The Kandaleru Creek and Upputeru creeks, Buckingham canal passes through the project site. The other surface water bodies in the study area include irrigation drains from agricultural fields, Sarvepalli reservoir and Govindapalli reservoir. The ephemeral drains inside the project site will not be disturbed and culverts CED 1 and CED 2 are proposed to be provided for the road and rail bridges over the drains without affecting their flow. The mangroves inside the Phase III developmental area will be conserved and pipelines from the nearby drain are provided for tidal exchange. The Kandaleru Creek will be straightened to develop the west dock. NIOT has studied the impacts of creek rerouting and it was found that there is only slight change in the water level and no impact on flushing and tidal exchange due to the proposed development.
9. The existing port facility has a water supply of 5 MLD which includes 1 MLD of water from Muthukur Reservoir provided by Government of Andhra Pradesh and 4 MLD of water from NakkalaKalava irrigation drain provided by Irrigation Department of Andhra Pradesh. The present Port facility (Phase-I and Phase-II developments) utilizes 2.5 MLD of water and the water requirement for the proposed Phase-III development is estimated to be 2.5 MLD. No groundwater will be extracted/utilized for the proposed project.
10. The port is proposed to install a Sewage Treatment Plant (STP) of capacity 700 KLD to treat the sewage and an Effluent Treatment Plant (ETP) of 300 KLD capacities to treat the wastewater from the Port. The treated wastewater will be utilized for greenbelt and dust suppression systems. Greenbelt is proposed in an area of 120 Ha along the Port boundary and around the coal storage areas with native species.
11. Benefits of the project: The proposed development would generate large scale direct and indirect employment for the local people in both the skilled and unskilled worker class. Further there would be an improvement to the local infrastructures in the vicinity of the port through CSR. About 6200 people will get employment during construction and operation phase. The proposed development will help in handling the increased cargo demand due to industrialization. This will contribute towards the growth in economy of the region and the nation. The increased revenue due to proposed development would contribute to the exchequer i.e., Central Government departments like Customs & Excise, Railways, Commercial Taxes and Income Tax. This will eventually contribute towards the State Government of Andhra Pradesh by way of share of revenue and lease rentals.
12. The project proponent along with the EIA consultant M/s Cholamandalam MS Risk Services Limited, Chennai made a presentation through Video Conferencing during 249th EAC meeting held on 14th December 2020. The EAC based on the information submitted and
 - (vi) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
 - (vii) Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
 - (viii) Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
 - (ix) A certificate from the competent authority for discharging treated effluent / untreated effluents into the Public sewer / disposal / drainage systems along with the final disposal point should be obtained.
 - (x) No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
 - (xi) All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline / boundary line from the land area into the marine water body.

IV. Noise monitoring and prevention:

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- (ii) Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment.
- (iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- (iv) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures:

- (i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- (ii) Provide LED lights in their offices and port areas.

VI. Waste management:

- (i) Dredged material shall be disposed safely in the designated areas.
- (ii) Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring reports.
- (iii) Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- (iv) The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- (v) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- (vi) A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- (vii) Used CFLs and TFLs should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.
- (viii) Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered.

VII. Green Belt:

- (i) Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
- (ii) Top soil shall be separately stored and used in the development of green belt.

VIII. Marine Ecology:

- (i) The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
- (ii) While carrying out dredging, an independent monitoring shall be carried out through a Government Agency / Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (iii) A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.
- (iv) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps,

Ministry vide OM dated 4th January, 2019 for the said project/ activity.

13. The Ministry of Environment, Forest and Climate Change has considered the proposal based on the recommendations of the Expert Appraisal Committee (Infrastructure, CRZ and other Miscellaneous projects) and hereby decided to grant Environmental and CRZ Clearance for the "Expansion of Krishnapatnam Port (Phase-III) at SPSR Nellore District, Andhra Pradesh by M/s Krishnapatnam Port Company Ltd." under the EIA Notification, 2006 as amended and CRZ Notification 2011, subject to strict compliance of the following specific conditions, in addition to all standard conditions applicable for such projects.
- (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals / consent / permissions etc required to be obtained under any other Act / Rule / regulation. The Project Proponent is under obligation to obtain approvals / clearances under any other Acts / Regulations or Statutes as applicable to the project.
 - (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC.
 - (iii) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
 - (iv) All the recommendations and conditions specified by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter 202/CRZ/IND/201930 dated 21.05.2020 shall be complied with.
 - (v) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase.
 - (vi) Development of green belt by native species with consultation with state forest department shall be ensured.
 - (vii) The proposed expansion entails 60 million cum of dredging in soft soil. As proposed, the PP shall utilize 26 million cu m of dredged sand for reclamation of low lying areas of port, stock pile 2 million cu m on the coast north of north breakwater for long term coastal protection as recommended by NIOT and disposal of balance 32 million cu m of dredged spoil in the identified dredge disposal area of 56 Km2 beyond (-) 20 m contour. The impact of dredging on the marine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed. NIOT will oversee the work as scientific body and continue to monitor its impact / benefits for at least 5 years post project completion. Necessary financial assistance to be provided by project proponent to NIOT. The report of the same to be submitted to regional office of MoEFCC by project proponent.
 - (viii) Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit with the help of reputed organization or individuals of national repute having knowledge in the said subject. Necessary financial assistance to be provided by project proponent.
 - (ix) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance reports to the regional office of MoEF&CC.
 - (x) The actions shall be in accordance with proposed landscape planning concepts to minimize major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network.
 - (xi) Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling.
 - (xii) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report.
 - (xiii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
 - (xiv) As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be implemented and become part of EMP.

B. STANDARD CONDITIONS:

I. Statutory compliance:

- (i) Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ii) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- (iii) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.

II. Air quality monitoring and preservation:

- (i) The project proponent shall install system to carryout Ambient Air Quality monitoring for common / criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NOx in reference to SO₂ and NOx emissions) within and outside the project area at least at four locations covering upwind and downwind directions.
- (ii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
- (iii) Shrouding shall be carried out in the work site enclosing the dock / proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
- (iv) Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
- (v) The Vessels shall comply the emission norms prescribed from time to time.
- (vi) Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low Sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- (vii) A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. / competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

III. Water quality monitoring and preservation:

- (i) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- (ii) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
- (iii) No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary / channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
- (iv) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- (v) The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.

- (v) The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

IX. Public hearing and human health issues:

- (i) The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
- (ii) Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary / required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
- (iii) Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents / accidents.
- (iv) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- (v) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) Occupational health surveillance of the workers shall be done on a regular basis.

X. Environment Responsibility:

- (i) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- (ii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- (iii) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.
- (iv) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

XI. Miscellaneous:

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (v) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (vi) The criteria pollutant levels namely: PM_{2.5}, PM₁₀, SO₂, NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (vii) The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- (viii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (ix) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (x) No further expansion or modifications in the port area shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- (xi) Concealing factual data or submission of false / fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiii) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xiv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xv) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- (xvi) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

19. This issues with the approval of the Competent Authority.

(Amardeep Raju)
Scientist-E

Copy to:

1. The Principal Secretary, Department of Forests & Environment and Chairman, APCZMA, Govt. of Andhra Pradesh, A.P. Secretariat, Velagapudi, Amaravathi, A.P.
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32.
3. The Member Secretary, AP Pollution Control Board, Chalamalavari Street, Kasturibaipet, Vijayawada - 520 010.
4. The APCCF (C), Tulja Guda Complex, building, M. J. Market, Hyderabad, (Andhra Pradesh) - 500001.
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File / Record File.
7. Notice Board.

(Amardeep Raju)
Scientist-E

"This is a copy of Environment Clearance issued in English and the original copy of the same is available on MoEF&CC website. This is in line with directive issued therein and is for information purposes only. In case of a discrepancy, the original Environment Clearance in English will prevail and KPCL shall not be liable for any ambiguity arises"

M/s కృష్ణపట్నం పోర్ట్ కంపెనీ లిమిటెడ్
3వ దశ విస్తరణకు పర్యావరణ మరియు సిఆర్ఐడీ అనుమతి గురించి

బహిరంగ ప్రకటన

ఇందుమూలంగా ప్రజలకు తెలియజేయునది ఏమనగా మధ్యకు వినియోగ/సహాయక ఉపయోగం మరియు మౌలిక సదుపాయాల కల్పనతో 3వ దశ విస్తరణ అభివృద్ధి పనులకు M/s కృష్ణపట్నం పోర్ట్ కంపెనీ లిమిటెడ్ పర్యావరణ అనుమతి (ఈసీ & సీఆర్ఐడీ) లభించింది. పర్యావరణ, అటవీ మరియు వాతావరణ మార్పు మంత్రిత్వ శాఖ, ఇందిరా పర్యావరణ భవన్, జోర్ బాగ్ రోడ్, న్యూ ఢిల్లీ-110003 వారు ఫైల్ నంబరు 10-18/2016-IA.III ద్వారా, తేదీ 11.01.2021న ఈ అనుమతి ఇచ్చాయి. పర్యావరణ పరిస్థితులు మరియు పరిరక్షణలతో పాటు పైన పేర్కొనబడిన అనుమతి కాపీని ఇక్కడ ప్రచురిస్తున్నాము మరియు ఆంధ్రప్రదేశ్ కాలవృద్ధి నియంత్రణ మండలి వారి వద్ద కూడా లభిస్తుంది. పర్యావరణ, అటవీ మరియు వాతావరణ మార్పు మంత్రిత్వ శాఖ వెబ్సైట్ <https://www.moef.nic.in> మరియు <http://krishnapatnamport.com> వెబ్సైట్లోని పర్యావరణ సమాచార విభాగంలో కూడా దీనిని చూడవచ్చు.

ఫైల్ నంబరు: 10-18/2016-IA.III

ప్రతిపాదన నంబరు: IA/AP/MIS/566/2009

భారత ప్రభుత్వం పర్యావరణ, అటవీ మరియు వాతావరణ మార్పు మంత్రిత్వ శాఖ (ప్రభావ అంచనా విభాగం) ఇందిరా పర్యావరణ భవన్, జోర్ బాగ్ రోడ్, అలీ గంజ్, న్యూ ఢిల్లీ-110003

తేదీ: 11 జనవరి, 2021

టు, ద డైరెక్టర్ ఆండ్ చీఫ్ ఎగ్జిక్యూటివ్ ఆఫీసర్ M/s కృష్ణపట్నం పోర్ట్ కంపెనీ లిమిటెడ్, 1వ అంతస్తు, 48-9-17, ద్వారకానగర్, విశాఖపట్నం-530 016, ఆంధ్రప్రదేశ్.

విషయం: M/s కృష్ణపట్నం పోర్ట్ కంపెనీ లిమిటెడ్ ఎస్ఐఎస్ఆర్ నెల్లూరు జిల్లా, ఆంధ్రప్రదేశ్లో కృష్ణపట్నం పోర్ట్ (3వ దశ) విస్తరణ- పర్యావరణ మరియు సిఆర్ఐడీ అనుమతి.

సార్,

M/s కృష్ణపట్నం పోర్ట్ కంపెనీ లిమిటెడ్ చే ఎస్ఐఎస్ఆర్ నెల్లూరు జిల్లా, ఆంధ్రప్రదేశ్లో కృష్ణపట్నం పోర్ట్ (3వ దశ) విస్తరణ కొరకు పర్యావరణ మరియు సిఆర్ఐడీ క్లియరెన్స్ గురించి 05 జూన్ 2020న ఈ మంత్రిత్వ శాఖకు మీరు ఆన్లైన్లో చేసిన ప్రతిపాదనకు సంబంధించి దీనిని ఇస్తున్నాము.

- శ్రీ పొట్టి శ్రీరాములు (ఎస్ఐఎస్ఆర్) నెల్లూరు జిల్లా, ఎపిలో 14°15'10" N అక్షాంశం మరియు 80°08' 05" E రేఖాంశం వద్ద ఉన్న కృష్ణపట్నం పోర్టుకు M/s కృష్ణపట్నం పోర్ట్ కంపెనీ లిమిటెడ్ అన్ని వాతావరణాలను కట్టకోగల, డిప్ వాటర్, బహుళ ఉపయోగపర పోర్టుగా అభివృద్ధి చేస్తోంది. కృష్ణపట్నం పోర్టు యొక్క దశ 1 మరియు 2 అభివృద్ధిలో అమోదించిన 17 బెర్తుల్లో 12 బెర్తులకు కావలసిన సముద్ర మౌలిక సదుపాయాలతో 68 ఎంటిమీల వివిధ రకాల కార్గో ప్లస్ 2.0 ఎంటియం/ఎ కంటియనర్ ట్రాఫిక్ అవసరాలను తీర్చేందుకు 1240 హెక్టార్లలో (3064 ఎకరాలు) తీయించిన భూమిలో అభివృద్ధి చేయబడింది. భవిష్యత్తులో ఉండే ట్రాఫిక్ అవసరాలను తీర్చేందుకు, పోర్టు యొక్క 3వ దశ విస్తరణను చేపట్టాలని తెలిపిందే ప్రతిపాదించింది.
- ప్రతిపాదిత దశ 3లో 150.2 ఎంటిమీల వివిధ రకాల కార్గో మరియు 1.1 ఎంటియం/ఎ కంటియనర్ కార్గో అవసరాలను తీర్చేందుకు పోర్టు పరిమితుల లోపల డిప్ వాటర్లో 3 ఎంటిమీల మరియు రిక్విర్డ్ కార్గో కొరకు 3 రిక్విర్డ్ సహజ 16 బెర్తులు ఉన్నాయి. ప్రతిపాదిత విస్తరణకు మొత్తం నేలలో 60 మిలియన్ క్యూబిక్ మీటర్ల డ్రైప్లింగ్, పోర్టులోని లోతట్టు ప్రాంతాలను పూర్తిచేయకు 26 మిలియన్ల క్యూబిక్ మీటర్ల డ్రైప్లింగ్ చేసిన ఇసుకను ఉపయోగించుకోవడానికి, ఎన్ఎబి సిఫారసు చేసినట్లుగా దీర్ఘకాలం తీర ప్రాంతాన్ని రక్షించేందుకు ఉత్తర ట్రేజివాటర్కి ఉత్తర తీరంలో 2 మిలియన్ క్యూబిక్ మీటర్లకు స్పెక్ 20 మి కంటేర్లకి మరియు (-) 20 మీ కంటేర్లకి మించి 56 చదరపు కిలోమీటర్లు గుర్తించిన డ్రైఫ్ట్ డిస్కంజల ఏరియాలో మిగతా 32 మిలియన్ క్యూబిక్ మీటర్ల డ్రైప్లింగ్ చేసిన మట్టిని విస్తరించడానికి హక్కు ఉంది. 2015 సంవత్సరంలో నెల్లూరు ప్రాంతంలో తీవ్ర వరదలు సంభవించిన దృష్ట్యా, కండలేరు ట్రీక్ గుండా నీటి డిస్కంజల పెంపొందించుకు, ట్రీక్లోని దీప్తులను కట్టింగ్ చేయాలని కూడా ఆంధ్రప్రదేశ్ ప్రభుత్వం ప్రతిపాదించింది. పోర్టు పొడవు లోపల కండలేరు ట్రీక్లో ఇప్పడున్న ఇసుక బారీ గుండా స్ట్రెయిట్ కట్ ఏర్పాటు చేయడం ద్వారా మరియు స్ట్రెయిట్ కట్ రెండు వైపులా బెర్తులో పట్టు డాక్ని అభివృద్ధి చేయడం ద్వారా ట్రీక్ యొక్క అనాటి మలుపులను తిరిగిపొందడం ద్వారా కండలేరు ట్రీక్ యొక్క మలుపులను ఏర్పాటు చేయాలని మార్గదర్శిన్ డెవలప్మెంట్ మరియు ప్రతిపాదిత కృష్ణపట్నం పోర్టు దశ 3 విస్తరణలో ప్రతిపాదించింది.
- ప్రతిపాదిత ప్రతిపాదన EIA నోటిఫికేషన్ 2006 ప్రకారం 7 (e), తేటగిరి A కిందకు వస్తుంది. ప్రాజెక్టు మొత్తం వ్యయం రూ. 907000 లక్షలు. టర్మ్ ఆఫ్ లభ్యత (టిఆర్) తీర్మానం. 10-18/2016-IA.III తేదీ 4 మే 2016న జారీ చేయబడింది. తేదీ 24 నవంబరు 2017న టీఆర్ఐకి సవరణ చేయబడింది. ఆ తరువాత 27 ఆగస్టు 2018న తేదీన టీఆర్ఐలో మరొక సవరణ చేయబడింది. తీర్మానం. 10-18/2016-IA.III తేదీ 24 నవంబరు 2017 ద్వారా టీఆర్ఐ సవరణ ప్రకారం ప్రజాభిప్రాయ సేకరణ నుంచి మినహాయించబడ్డారు. అయితే, ప్రజాభిప్రాయ సేకరణ 2009లో చేసిన సిఫారసులను అమలు చేయాలని మరియు వీటిని వేరే డాక్యుమెంటుగా ఇటువలె లిస్టింగ్ ఇవ్వాలని సమర్పించాలని సిఫారసు చేయబడ్డాయి.
- ప్రజాభిప్రాయ సేకరణలో ఇచ్చిన వాగ్దానం మేరకు పోర్టు సరిహద్దు వెంబడి 100 మీటర్ల గ్రీన్ బెల్ట్ని అభివృద్ధి చేయబడ్డాయి. ఆ తరువాత ఎపిసిటి కిలోలక్ మేరకు, 191.5 హెక్టార్ల గ్రీన్ బెల్ట్ని అభివృద్ధి చేయబడ్డాయి. ఆంధ్రప్రదేశ్ ప్రభుత్వం పోర్టు నుంచి 4 వరుసల రోడ్లను అభివృద్ధి చేసి సేవలలో పైజే 16కి అనుసంధానం చేసింది. స్థానిక ప్రజల కోరిక మేరకు, వాయు కాలుష్యాన్ని నిరోధించేందుకు కృష్ణపట్నం పోర్టు పర్యావరణ పరిరక్షణ చర్యలు చేపట్టింది. పోర్టు మరియు పోర్టు అధికారి పరిశ్రమల్లో పనిచేస్తున్న జనాభా మొత్తం సంఖ్య 10,500. ఇంకా, టెసిఎల్ 33 పరిసర గ్రామాలను రక్షణకు తీసుకుని అవసరమైన అభివృద్ధి కార్యకలాపాలు చేస్తోంది.
- ప్రతిపాదిత ప్రాజెక్టు యొక్క మొత్తం విస్తీర్ణం 1094 హెక్టార్లు (2703 ఎకరాలు). ఈ ప్రాజెక్టులో భూ సేకరణలు మరియు అరేంజ్మెంట్ లేదు. ఎందుకంటే ప్రతిపాదిత ప్రాజెక్టు పనులు కృష్ణపట్నం పోర్టుకు తీయించిన ప్రాంతం లోపల మాత్రమే చేయబడతాయి. అటవీ భూమి మార్పులు లేవు. ప్రతిపాదిత దశ 3 అభివృద్ధి ప్రాంతంలో ఉన్న దాదాపుగా 7.128 హెక్టార్లలోని మ్యూన్సిపల్ స్ట్రీట్స్ ప్యావేలను రక్షించడం జరుగుతుంది. జాతీయ పాఠశాల, ఆధునారణ్యాల మరియు పులల సందర్శన కేంద్రాలు తదితర లాంటి పర్యావరణ నిర్మితమైన జోన్/రక్షిత ప్రాంతాలు ఈ ప్రాజెక్టుకు 10 కిలోమీటర్ల రేడియస్లో లేవు.
- ఈ ప్రతిపాదిత ప్రాజెక్టు సైట్ తీర ప్రాంతంలో ఉంది మరియు సిఆర్ఐడీ నోటిఫికేషన్, 2011 కిందకు వస్తుంది. సవరించిన టెసిఎల్ దశ 3 విస్తరణ లోఅవుట్ ప్రకారం, ప్రతిపాదిత ప్రాజెక్టు పనుల యొక్క సిఆర్ఐడీ ఏరియా వివరాలను ఇన్స్టిట్యూట్ ఆఫ్ రిమోట్ సెన్సింగ్, అన్నా యూనివర్సిటీ ఇచ్చింది. సిఆర్ఐడీ మ్యాప్ తయారీకి ఈ యూనివర్సిటీ అభివృద్ధి చేసింది. సిఆర్ఐడీ మ్యాప్ను సూపర్ఇంపోజ్ చేసిన లేఅవుట్ని 1:4000 స్కేల్లో చేయబడ్డాయి. ప్రతిపాదిత ప్రాజెక్టును ఆంధ్రప్రదేశ్ కోస్టల్ జోన్ మేనేజ్మెంట్ అథారిటీ (ఎస్ఐఎస్ఆర్ఎంఎ) అంచనా వేయబడింది మరియు తీర్మానం. 202/CRZ/IND/201930 తేదీ 21.05.2020న సిఫారసు పొందబడింది.
- ప్రతిపాదిత ప్రాజెక్టు పొడవున బంగారాకాళుకు నుంచి వెంబడి ఉంది. ఈ ప్రాజెక్టు గుండా కండలేరు ట్రీక్, ఉప్పటిరు ట్రీక్లు, బెలింగ్ పర్వేషి కెనాల్ వెళుతున్నాయి. వ్యవసాయ పొలాల్లోని సాగునీటి డ్రెయిన్లు, సర్వేయి రిజర్వాయర్ మరియు గోవిందపల్లి రిజర్వాయర్లు ఇక్కడ ఉన్న ఇతర ఉపరితల నీటి వనరులు ప్రాజెక్టు సైట్ లోపల ఉన్న శాశ్వతం కాని డ్రెయిన్లకు విఫూతం కలగను మరియు నీటి ప్రవాహాలు ప్రభావితం కాకుండా డ్రెయిన్లపై రోడ్ మరియు రైలు బ్రడ్జిలు నిర్మించేందుకు కట్టడం సిఆర్ఐ 1 మరియు సిఆర్ఐ 2 ప్రతిపాదించాలి. దశ 3 అభివృద్ధి ప్రాంతం లోపల ఉన్న మ్యూన్సిపల్ పరిరక్షించిన మరియు ట్రైడల్ ఎక్స్చేంజ్ కొరకు సమీపంలోని డ్రెయిన్ నుంచి పైప్లైన్లు వేయాలి. పట్టు డాక్ని అభివృద్ధి చేసేందుకు కండలేరు ట్రీక్ని ఉన్నా చేయాలి. ట్రీక్ని దారి మార్పుచేయడం వల్ల కలిగే ప్రభావాన్ని ఎన్ఎబిఆర్ అప్రయన్సం చేసింది మరియు ఇలా చేయడం వల్ల నీటి మట్టంలో కొద్దిగా మాత్రమే మార్పు ఉంటుందని మరియు ప్రతిపాదిత అభివృద్ధి వల్ల ప్లస్గింగ్ మరియు ట్రైడల్ ఎక్స్చేంజ్ను ప్రభావం ఉండదని వెల్లడైంది.
- ప్రస్తుత పోర్టుకు 5 ఎంఎల్డి నీటి సరఫరా ఉంది, దీనిలో ఆంధ్రప్రదేశ్ ప్రభుత్వం ముక్తుకూరు రిజర్వాయర్ నుంచి 1 ఎంఎల్డి సరఫరా చేస్తుండగా ఆంధ్రప్రదేశ్ రాష్ట్ర ఇరిగేషన్ శాఖ సర్క్యూలర్ నుంచి 4 ఎంఎల్డి నీటిని సరఫరా చేస్తోంది. ఈ ప్రస్తుత పోర్టు (దశ-1 మరియు దశ-2 అభివృద్ధి) 2.5 ఎంఎల్డి నీటిని వినియోగించుకుంటోంది. ప్రతిపాదిత దశ 3 అభివృద్ధికి నీటి అవసరం 2.5 ఎంఎల్డి ఉంటుందని అంచనావేయబడ్డాయి. ఈ ప్రతిపాదిత ప్రాజెక్టు కోసం భూగర్భ జలాలు తోడటం/వినియోగించుకోవడం ఉండదు.
- మురుగు నీటిని శుద్ధి చేసేందుకు 700 కెఎల్డి సామర్థ్యంతో సేవేట్ ట్రీట్మెంట్ ప్లాంట్ (ఎస్ఐటి) మరియు పోర్టులోని వర్ష నీటిని శుద్ధి చేసేందుకు 300 కెఎల్డి సామర్థ్యంతో ఎఫ్ల్యుయెంట్ ట్రీట్మెంట్ ప్లాంట్ (ఇటిపి) నెలకొల్పాలని పోర్టు ప్రతిపాదించింది. శుద్ధి చేసిన వర్ష నీటిని గ్రీన్బెల్ట్లో మరియు యమ్మ అబిడేవ్ వ్యవస్థలకు ఉపయోగించడం జరుగుతుంది. పోర్టు సరిహద్దు వెంబడి మరియు బొగ్గు నిల్వచేసే ప్రాంతాల్లో 120 హెక్టార్ల విస్తీర్ణంలో స్థానిక తెగకు చెందిన మొక్కలతో గ్రీన్బెల్ట్ని అభివృద్ధి చేయబడ్డాయి.
- ప్రాజెక్టు వల్ల కలిగే ప్రయోజనాలు: ప్రతిపాదిత అభివృద్ధి పనులు నైపుణ్యం గల మరియు నైపుణ్యం లేని కాల్డిక్ డ్రైటిలో స్థానిక ప్రజలకు ప్రత్యక్షంగా మరియు పరోక్షంగా భారీ స్థాయిలో ఉపాధి అవకాశాలు కల్పిస్తుంది. సెవెస్ డ్రిస్టాని పోర్టు పరిసర ప్రాంతాల్లో స్థానిక మౌలికసదుపాయాల్లో పురోగతి ఉంటుంది. నిర్మాణ మరియు నిర్వహణ దశలో దాదాపు 6200 మంది ప్రజలకు ఉపాధి లభిస్తుంది. పాఠశాలావకత వల్ల పెరుగుతున్న కార్గో డిమాండ్ని తీర్చడానికి ప్రతిపాదిత అభివృద్ధి సహాయపడుతుంది. ఇది ఈ ప్రాంతంలో పాటు దేశ ఆర్థికాభివృద్ధికి దోహదపడుతుంది. ప్రతిపాదిత అభివృద్ధి వల్ల వెలిగిన ఆదాయం కష్టమైన అండ్ ఎక్సైజ్, రైల్వేస్, వాణిజ్య పన్ను మరియు ఆదాయపు పన్ను లాంటి కేంద్ర ప్రభుత్వ శాఖల ఖజానాకు దోహదపడుతుంది. ఇది అంతిమంగా ఆదాయం వాటా మరియు లిజి అడ్వైల రూపంలో ఆంధ్రప్రదేశ్ కూడా దోహదపడుతుంది.
- ఇటువలె కష్టమైన M/s చోళమండలం ఎంఎస్ లస్సె సర్వీసెస్ లిమిటెడ్, చెన్నైతో పాటు ప్రాజెక్టు ప్రతిపాదకులు 14 డిసెంబరు 2020న జరిగిన 249వ ఇసుగి సమావేశంలో వీడియో కాన్ఫరెన్సింగ్ ద్వారా సమర్థన చేశారు. ప్రాజెక్టు ప్రతిపాదకులు సమర్పించిన మరియు ఇచ్చిన వివరణలపై మరియు అన్ని విషయాలపై చేసిన వివరమైన చర్చలపై ఆధారపడిన ఇసుగి, సదరు ప్రాజెక్టు/యూక్టివిటీకి 4 జనవరి, 2019 తేదీన ఒంం ద్వారా మంత్రిత్వ శాఖ తెలియజేసినట్లుగా ఇతర ప్రామాణిక ఇసుగి పునరుత్పత్తి పాటు స్వయంగా నిర్దేశించిన నిర్ణయ పునరుత్పత్తితో ఈ ప్రాజెక్టుకు పర్యావరణ మరియు సిఆర్ఐడీ క్లియరెన్స్ మంజూరు చేయబడనీమిదిగా సిఫారసు చేయబడుతోంది.

- తీసుకునే మరియు విడుదల చేసే నీటికి మధ్యలో గల ఉష్ణోగ్రత వ్యత్యాసాలను నిర్వహించేందుకు ప్రాజెక్టు ప్రతిపాదకులు ప్లాన్ రూపొందించి అమలు చేయాలి.
 - నిర్మాణ సైట్లో ఇంధనం/ఇంజన్ అయిల్ మరియు లూబ్రికెంట్ చిందడం వల్ల సేంద్రీయ కాలుష్యం ఏర్పడి, ఇది సముద్ర ప్రాణాలను ప్రభావితం చేస్తుంది. తగిన ముందుకాగ్రహణ తీసుకోవడం ద్వారా మరియు చిందినదానిని పట్టుకునేందుకు అవసరమైన యంత్రాంగాలను అందించడం ద్వారా కూడా దీనిని నిరోధించాలి.
 - ఉపయోగించే మొత్తం కాజాదనపు నీరు ప్రాజెక్టు వివరల్లో ఇవ్వబడిన ప్రతిపాదిత అవసరాన్ని మించకూడదు. కాజాదనపు నీటిని ఉపయోగించేందుకు సంబంధిత అధికారుల నుంచి అనుమతి తీసుకోవాలి.
 - ప్రాజెక్టు నుంచి ఉత్పత్తి అయ్యే వర్ష నీటిని శుద్ధి చేసేందుకు సేవేట్ ట్రీట్మెంట్ ప్లాంట్ని నెలకొల్పాలి. శుద్ధిచేసిన నీటిని పల్లకల్లర్, ప్లస్గింగ్, బ్యాక్వామ్, హెచ్ఐఎస్ ఉద్దేశాలకు మరియు యమ్మ సస్పెన్షన్కి ఉపయోగించాలి.
 - శుద్ధిచేసిన ఎఫ్ల్యుయెంట్/శుద్ధిచేయని ఎఫ్ల్యుయెంట్లను చివల డిస్కంజల పొయింట్లో పాటు ప్రజా సేవర్/డిస్కంజల/డ్రైనేజ్ సిస్టమ్లోకి డిస్కంజల చేసేందుకు సంబంధిత అధికారి నుంచి సర్టిఫికేట్ తీసుకోవాలి.
 - నీటి వనరుల మంత్రిత్వ శాఖ నుంచి ముందుగా అనుమతి తీసుకోకుండా నది యొక్క సహజమైన గమనాన్ని మార్చడంకూడదు.
 - నీటి ముఖ ద్వార సదుపాయాల్లో కోత నియంత్రణ చర్యలన్నింటినీ తీసుకోవాలి. భూమి నుంచి తీరప్రాంతం/సరిహద్దు గీత నుంచి సముద్ర నీటి బాడిలోకి కోసుకుపోవడాన్ని నివారించేందుకు భూమి రక్షణ పని నిర్వహించాలి.
- IV. ధ్వని పర్యవేక్షణ మరియు నిరోధకత:**
- ధ్వని స్థాయి సర్వేని నిర్ణీత మార్గదర్శకాల ప్రకారం నిర్వహించాలి మరియు దీని లిస్టింగ్ను ఆరు-నెలవారీ వర్తింపు నివేదికతో భాగంగా మంత్రిత్వ శాఖ రిజిస్టర్ ఆఫీసర్కి సమర్పించాలి.
 - వాతావరణ, పవర్ యంత్రాల మరియు సైట్లోని పరికరాల నుంచి వెలువడే ధ్వని నిర్ణీత పరిమితిని మించకూడదు. పరికరాలకు త్రమంతుకుండా సర్వీసు చేయాలి; ముగ్గుర్ మెయింటెనెన్స్ కి మరియు ధ్వని వచ్చే పరికరాలకు ఎన్క్లోజర్ కట్టించడానికి కూడా శ్రద్ధ చూపాలి.
 - డిజి సెట్లకు ధ్వని ఎన్క్లోజర్లు, నేలపై నడిచే బేలుకి ధ్వని బ్యూరియర్లు, అవరేటింగ్ సిస్టంబికి ఇయర్ ప్లగ్లను గ్రౌండ్ సోర్సుల వల్ల కలిగే ధ్వని ప్రభావాన్ని తగ్గించే చర్యలు అమలు చేయాలి.
 - పరిసరాల ధ్వని స్థాయిలు E(P)A rule, 1986లో ప్రొట్రయిట్ చేసిన ప్రమాణాల ప్రకారం పగటి పూట 75 dB(A) మరియు రాత్రి వేళల్లో 70 dB(A) ఉండాలి.
- V. ఎస్ఎల్ పరిరక్షణ చర్యలు:**
- భవనాల రూపరేఖలపై సోలార్ పవర్ ఉత్పత్తి, అన్ని కామన్ ఏరియాలకు సోలార్ లైట్ సిస్టమ్, వీధి దీపాలు, ప్రాజెక్టు ఏరియాలకు దరదాపుల్లో పొర్లింగ్ ఏర్పాటు చేయాలి మరియు వీటిని రెగ్యులర్గా మెయింటెన్యన్స్ చేయాలి.
 - వాక్స్ కార్పొరేషన్లో మరియు పోర్టు ఏరియాల్లో ఎల్ఎడి లైట్లు ఏర్పాటు చేయాలి.
- VI. వ్యవసాయాన్ని నిర్వహణ:**
- డ్రైఫ్ట్ మెటీరియల్ని తీయించిన ప్రాంతాల్లో సురక్షితంగా విసర్జించాలి.
 - అంబింగ్ వల్ల తీరప్రాంతానికి విఫూతం కలగకూడదు. తీర ప్రాంతంలో మార్పులపై అప్రయనాన్ని ఎఫ్ల్యుయెంట్లకు చేయాలి మరియు అవసరమైన తీవ్రత తగ్గించే చర్యలు నిర్వహించాలి. వివరాలను ఆరు-నెలవారీ పర్యవేక్షణ లిస్టింగ్లో పాటు సమర్పించాలి.
 - ఎఫ్ల్యుయెంట్ల మరియు సాటిడ్ వేస్టులను శుద్ధి చేసేందుకు అవసరమైన ఏర్పాట్లు తప్పకుండా చేయాలి మరియు కేంద్ర లేదా రాష్ట్ర కాలుష్య నియంత్రణ మండలితో సహా సంబంధిత అధికారులను పొందుపరచిన ప్రమాణాలను మరియు పర్యావరణ (రక్షణ) చట్టం, 1986ని తప్పకుండా పాటించాలి.
 - ఘన వ్యర్థ పదార్థాలను సేద్యం చేసేందుకు నిబంధనలు, 2016 నిబంధనల ప్రకారం నిర్వహించాలి మరియు డిమాండ్ల వల్ల మేనేజ్మెంట్ నిబంధనలు, 2016 నిబంధనల ప్రకారం తప్పకుండా నిర్వహించాలి.
 - నిర్మాణం మరియు దీనికి సంబంధించిన కార్యక్రమ పనుల నుంచి వెలువడే ఘన వ్యర్థ పదార్థాలను ఏదైనా కన్స్ట్రక్షన్ మరియు డిమాండ్ల వల్ల మేనేజ్మెంట్ నిబంధనలు, 2016 నిబంధనల ప్రకారం తప్పకుండా నిర్వహించాలి.
 - ముగ్గువల్ల ఘన వ్యర్థ పదార్థాలను సంభాళించే సంబంధిత అధికారి నుంచి సర్టిఫికేట్ తీసుకోవాలి, సంభాళించడంలో ప్రస్తుత సివిల్ సామర్థ్యాల మరియు ప్రాజెక్టు నుంచి ఉత్పాదించిన ఎం.ఎస్.డబ్ల్యు తీర్మానానికి కావలసినవి ఉన్నాయని విషయం సూచించాలి.
 - ఉపయోగించిన సిఎఫ్ఎల్లను మరియు టిఎఫ్ఎల్లను సరిగ్గా సేకరించాలి మరియు మెర్క్యూరీ కాలుష్యాన్ని నివారించేందుకు రెగ్యులేటరీ అథారిటీ యొక్క ఆదేశం అమలులో ఉన్న మార్గదర్శకాలు/నిబంధనల ప్రకారం పంపాలి/డిస్కంజల చేయాలి.
 - అయిల్ స్పిల్ కంట్రోల్స్ ప్లాన్ని తయారు చేయాలి మరియు అత్యవసరాలను ఎదుర్కొనేందుకు డిఎంపిలో భాగంగా ఉండాలి. పరికరాలను మరియు చిందిన అయిల్ని లెకవర్ చేయడాన్ని మదింపు చేయాలి. అయిల్ స్పిల్ మేనేజ్మెంట్ కొరకు MARPOL మరియు Shipping actsలో ఇవ్వబడిన మార్గదర్శకాలను అనుసరించాలి. తీరం యొక్క సమస్యయం కింద సమగ్ర ఏరియా కంట్రోల్స్ ప్లాన్తో బిల్డింగ్ అయిల్ కంట్రోల్స్ ప్లాన్ ఏకీకరణ యంత్రాంగాన్ని కవర్ చేయాలి.
- VII. గ్రీన్ షెడ్:**
- గ్రీన్ బెల్ట్ని సీఎస్ఎస్ మార్గదర్శకాల ప్రకారం స్థానిక చెట్లు జాతులతో ప్రాజెక్టు వివరల్లో ఇవ్వబడినట్లుగా ఏరియాలో అభివృద్ధి చేయాలి.
 - పై మట్టిని వేరేగా నిల్వ చేయాలి మరియు గ్రీన్ బెల్ట్ అభివృద్ధిలో ఉపయోగించాలి.
- VIII. సముద్ర పర్యావరణం:**
- ఏర్పడిన పరిణామ చేపల సంఖ్యపై ఒక్కొక్కరి నిరోధించేంత త్వరగా విడుదలయ్యేలా డ్రైఫ్టింగ్ షెడ్యూలును ప్రజాళక చేయాలి.
 - డ్రైఫ్టింగ్ నిర్వహించేందుకు, ప్రభావాన్ని మదింపు చేసేందుకు ప్రభుత్వ ఏజెన్సీ/సంస్థల ద్వారా స్వతంత్ర పర్యవేక్షణ చేయాలి మరియు ఏదైనా ప్రతికూల ప్రభావం గమనించబడితే ప్రాధాన్యత ప్రాజెక్టులో అవసరమైన చర్యలు తీసుకోవాలి.
 - వివరమైన మెరైన్ బయోడైవర్సిటీ మేనేజ్మెంట్ ప్లాన్ని ఎన్ఎబిఆర్ ద్వారా లేదా మెరైన్, ట్రాకింగ్ వాటర్ మరియు బయోడైవర్సిటీ పేరు ప్రఖ్యాతులు గల ఏదైనా ఇతర సంస్థతో తయారు చేయాలి మరియు రాష్ట్ర బయోడైవర్సిటీ బోర్డుకు మరియు సిఆర్ఐడీ అధికారికి సమర్పించాలి మరియు వాళ్లకు సంకృప్తి కలిగేలా అమలు చేయాలి. ఇంటర్వెన్టివ్ బయోటోప్స్ పరగాలు, మాలిన్లు, సముద్రపు గడ్డి, సముద్రపు కలుపులు, సబ్-ట్రైడల్ పర్వతీటల్స్ చేపలు, బెంకోస్, ప్లాంక్టన్, ఉల్లిల్లే, పక్షులు తదితర వాటితో సహా ఇతర సముద్ర మరియు అంతర్గత ప్రామాణిక సర్వే పద్ధతుల ప్రకారం మరియు అందరేవాటర్ ఫోటోగ్రఫీ ఉండాలి.
 - సముద్ర కలుపులు, సముద్ర గడ్డి, మిడతల నేలలు, ఇసుక తీర్చులు, చేపలు, ఎక్స్టెన్సెస్, రొయ్యలు, కాల్షిక్స్, పగడాలు, తీరప్రాంత వృక్షాలు, మ్యూన్సిపల్స్ మరియు సముద్ర జీవవైవిధ్యంలో భాగమైన చివ మరియు పెద వక్ష బంతు జాతులతో సహా ఇతర సముద్ర జీవవైవిధ్యం లాంటి సముద్ర పర్యావరణాన్ని కూడా త్రమంతుకుండా పర్యవేక్షించాలి.

- ఇది ఇంగ్లీష్లో జారీచేసిన పర్యావరణ ఆమోదం కానీ మరియు దీని అసలు కాపీ ఎంబెయిండ్మెంట్‌ను వెబ్‌సైట్‌లో లభిస్తుంది. ఇది ఇక్కడ జారీచేయబడిన ఆదేశాలకు అనుగుణంగా ఉంది మరియు సమాచార ప్రయోజనాల కోసం మాత్రమే ఇవ్వబడింది. ఒకటో తేదా ఏమైనా ఉంటే, ఇంగ్లీష్‌లో ఉన్న అసలు పర్యావరణ అనుమతి మాత్రమే చెల్లుతుంది మరియు దీనిని ఏదైనా సందర్భానికి తెలిసినట్లయితే భాషలుగా చేయకూడదు.

KRISHNAPATNAM PORT COMPANY LTD.

Ref: KPCL/EC/EHS/005-2021

Date: 12/01/2021

To**The Environmental Engineer**

AP Pollution Control Board

Regional Office,

A.P.S.F.C. Building, A.K. Nagar

Sri Potti Sriramulu Nellore

Sub: Submission of Environmental and CRZ clearance for "Expansion of Krishnapatnam Port (Phase III) at SPSR Nellore District, Andhra Pradesh" - Regd.

Ref: Environmental and CRZ Clearance for Phase – III vide File No: 10-18/2016-IA.III dated 11.01.2021.

Dear Sir,

As per the condition in XI. Miscellaneous, point (ii) of Environmental and CRZ clearance cited above, Krishnapatnam Port is herewith submitting copy of Environmental and CRZ clearance accorded to Krishnapatnam Port for "Expansion of Krishnapatnam Port (Phase-III) at SPSR Nellore District, Andhra Pradesh".

Kindly acknowledge the receipt of the same.

Thanking you

Yours truly,

For **KRISHNAPATNAM PORT COMPANY LIMITED**

(Signature)
12/01/2021

G. Venugopal Reddy
DGM-EHS

Encls: As above



P.O.Bag No.1, Mutthukur Mandal, SPSR Nellore District, Andhra Pradesh - 524 344. India.

Tel : +91-861-2377999 **Fax :** +91-861-2377046 **Email :** customerservice@krishnapatnamport.com **URL :** www.krishnapatnamport.com

Regd. Office : 48-9-17, Dwarakanagar, Visakhapatnam - 530016 A.P., India.

CIN : U45203AP1996PLC023529, **Tel :** +91-891-2754602, **Fax :** +91-891-2747362



Ports and
Logistics

Lr.No.AKPL/2021, dt. 03.02.2021.

To

**The Collector & District Magistrate,
SPS Nellore Dist.,**

Respected Sir,

Sub: Development of Krishnapatnam Port – Expansion of KP Port (Phase – III)
at SPSR Nellore District., Andhra Pradesh by M/s Adani Krishnapatnam
Port Ltd., - Environmental and CRZ Clearance – Reg.,

Ref: File No. 10-18/2016 – 1A.III proposal No. 1A/AP/MIS/566/2009, dt.
11.01.2021 from the Ministry of Environment, Forest and Climate Change
(Impact Assessment Division), New Delhi.

* * *

With reference to the subject cited, we bring to your kind notice that we have
received Environmental and CRZ Clearance vide reference cited for expansion
of Krishnapatnam Port (Phase – III) at SPSR Nellore Dist., Andhra Pradesh, from
the Ministry of Environment, Forest and Climate Change (Impact Assessment
Division), New Delhi.

This is submitted for favour of kind information, please.

Encl: Above reference.

With kind regards,

Yours sincerely,
for **Adani Krishnapatnam Port Ltd.,**


**Dy. General Manager,
Corporate Affairs.**

03/02/2021
తేది: 03/02/2021
అధికారి సహాయకులు
జిల్లా కలెక్టరు వారి కార్యాలయము
శ్రీ పొత్తి ప్రకాశులు నెల్లూరు జిల్లా

లేఖ నెం. కె.పి.సి.ఎల్/2021, తే.01.02.2021.ది

To

1. ది పంచాయతి సెక్రటరీ, గ్రామ పంచాయతి కార్యాలయము, ముత్తుకూరు.
2. ది పంచాయతి సెక్రటరీ, గ్రామ పంచాయతి కార్యాలయము, కృష్ణపట్నం.
3. ది పంచాయతి సెక్రటరీ, గ్రామ పంచాయతి కార్యాలయము, నారికేళ్ళపల్లి.
4. ది పంచాయతి సెక్రటరీ, గ్రామ పంచాయతి కార్యాలయము, పంటపాళెం.
5. ది పంచాయతి సెక్రటరీ, గ్రామ పంచాయతి కార్యాలయము, తమ్మినపట్నం.

అయ్యా!

విషయము : కృష్ణపట్నం పోర్టు, ఫేజ్-III, శ్రీ పాట్టి శ్రీరాములు నెల్లూరు జిల్లా, ఆంధ్రప్రదేశ్ - పర్యావరణ మరియు సి.ఆర్.జెడ్ క్లియరెన్స్ గురించి తెలియజేయుట.

సూచిక : నెం.10-18/2016 - I ఎ, 3, ప్రపోజల్ నెం.1ఎ/పి.పి/ఎం.ఐ.ఎస్/566/2009, తే.11.01.2021.ది మినిస్ట్రీ ఆఫ్ పర్యావరణ మార్పు, (ఇంప్యాక్ట్ అసెస్మెంట్ డివిజను), న్యూఢిల్లీ.

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ఇందుమూలముగా తెలియజేయడమేమనగా, పై సూచిక ద్వారా, కృష్ణపట్నం పోర్టు, ఫేజ్-III, శ్రీ పాట్టి శ్రీరాములు నెల్లూరు జిల్లా, ఆంధ్రప్రదేశ్ వారికి పర్యావరణ మరియు సి.ఆర్.జెడ్ క్లియరెన్స్ వచ్చినదని తెలియజేయడమైనది. ఇందువంట పై సూచిక జతపరచడమైనది.

ఇట్లు

భవదీయులు

[Signature]
Panchayati Secretary
Gramapanchayati
Pantapalem, Muthukur Mandal,
SPSR Nellore Dist

[Signature]
Panchayath Secretary
Thaminapatnam Gram Panchayath
Chillakur Mandal, SPSR Nellore Dist.

[Signature]
Panchayati Secretary
GRAMAPANCHAYATI
Narikellapalli, Muthukur Mandal,
SPSR Nellore Dist.

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Panchayat Secretary
Grampanchayat, Muthuku:
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