



सत्यमेव जयते

File No: 10/12/2025-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Date 08/05/2025



To,

R. N. Harikrishna
VISAKHAPATNAM PORT AUTHORITY
Chief Engineer, Administrative Office Building (AOB), Visakhapatnam Port Authority, Visakhapatnam,
Vishakapatnam, Andhra Pradesh, 530035
vptenvironmentcell21@gmail.com

Subject: Capacity optimization from 2.5 to 2.62 MMTPA of the existing berth EQ 6 of Visakhapatnam Port, over an area of 5.75 Ha located at Visakhapatnam by M/s Visakhapatnam Port Authority (VPA)' under clause 7 (ii) of the EIA notification, 2006-Environmental and CRZ Clearance regarding.

Sir/Madam,

M/s Visakhapatnam Port Authority (VPA) submitted the online application vide proposal no. IA/AP/INFRA1/529250/2025 dated 17/03/2025 seeking the Environmental and CRZ Clearance under 7(ii) of the EIA notification, 2006 and CRZ notification, 2011 for the project mentioned above.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC25A3501AP5405228N
(ii) File No.	10/12/2025-IA.III
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	7(e) Ports, harbors, breakwaters, dredging
(vi) Sector	INFRA-1
(vii) Name of Project	Proposed Modernization of Existing berth EQ 6 of Vishakhapatnam Port ,Vishakhapatnam
(viii) Name of Company/Organization	VISAKHAPATNAM PORT AUTHORITY
(ix) Location of Project (District, State)	VISAKHAPATANAM, ANDHRA PRADESH
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per	No

EIA Notification, 2006

3. The proposal is for the 'Capacity optimization from 2.5 to 2.62 MMTPA of the Existing berth EQ 6 of Visakhapatnam Port, over an area of 5.75 Ha located at Visakhapatnam by M/s Visakhapatnam Port Authority (VPA)' under clause 7 (ii) of the EIA notification, 2006 and CRZ notification, 2011 for the project mentioned above.

4. Visakhapatnam port of Andhra Pradesh is a brownfield port. The port is located on the eastern coast of India in Visakhapatnam, Andhra Pradesh. The berth EQ-6 is located in the Inner Harbour of Vishakhapatnam Port (Latitude 17°42'25.74" N and Longitude 83°17'29.49" E). Port limits were declared by the Ministry of Shipping (Ports Wing), Government of India, as per Notification G.S.R. 451(E) dated 03.06.2003.

5. The project/activity is covered under the category 'A' of item 7(e), i.e., 'Ports, harbours, breakwaters, dredging' of the schedule to the EIA Notification, 2006, and its subsequent amendments. The cost of the project is estimated to be Rs. 69.69 Cr.

6. The Visakhapatnam port had obtained the environmental clearance from the Ministry of Surface Transport vide letter No.PD/26017/1/98-CRZ-VPT dated 19-05-1998 for the Construction of 4 Multipurpose Berths in the Extended arm of the Internal Harbour at VPT. Consent from the Andhra Pradesh Pollution Control Board (APPCB) vide Order No. APPCB/VSP/VSP/45/CFO/HO/1933 dated 13-04-2022 was obtained for 46.55 MMTPA, including 1,00,000 TEU of containers with validity up to 31-12-2026.

7. The project involves capacity optimization of the existing EQ-6 berth from 2.5 to 2.62 MMTPA, aiming to handle a higher quantity of cargo. The details of EQ-6 existing and proposed components are as follows:

Sl. No.	Details	Units	EQ-6		
			Existing	Incremental	Final Configuration
1.	Cargo handling Capacity	MMTPA	2.5	0.12	2.62
2.	Berth Area and Intermediate Storage Area	Acres (ha)	3.7 (1.51)	0	3.7 (1.51)
3.	Cargo Storage Area	Acres (ha)	10.50 (4.24)	0	10.50 (4.24)
4.	Conveyor length	Km	0	0	0
5.	Cargo Type	-	Anthracite coal, Rock phosphate, sulphur, Finished fertilizer, Mn ore, limestone, C.P. Coke, Caustic soda, Phosphoric acid, Ammonium Nitrate, Stone aggregate, Iron and steel, cement	Phosphoric acid, Caustic soda shall not be considered for handling further at this berth.	Anthracite Coal, Rock Phosphate, Sulphur, Limestone, CP Coke, Stone aggregate, Ammonium Nitrate, Cement, Iron and Steel, Other Bulk and Breakbulk cargo
6.	Cargo Handling Mechanism	-	Conventional	Semi-mechanization	Semi-mechanization

8. The berth throughput of 2.62 MMTPA includes the following EXIM cargo: a) Bulk cargo–Anthracite Coal, Rock Phosphate, Sulphur, Limestone, CP Coke, Stone aggregate, and other bulk cargo. b) Break bulk cargo–Ammonium Nitrate, Cement, Iron and Steel, and other breakbulk cargo. Enhancement in the existing semi-mechanization system shall be carried out. The berth will be equipped with one Mobile Harbor Crane (MHC) specifically dedicated to handling imported cargo. This MHC will facilitate the transfer of cargo from the ship to the port, and subsequently, the cargo will be efficiently transferred to trucks using mobile hoppers designed for handling dry bulk cargo. From the berth, the

imported material will be transported via trucks (each of 20 cu. m. capacity) and dumped into the stackyard area, and the material thus unloaded will be organized with the help of wheel loaders in appropriate stacks of height 6m.

9. The details of Cargo handling Equipment having for Berth EQ 6 are as follows:

Sl.No.	Description	Specification	Nos.
1	Mobile Harbor Crane	1500 TPH	1
2	Mobile hopper	150 T	1
3	Tipper Trucks	20 cum	23
4	Wheel loaders (2 cum basket)	-	7
5	Fork lifts	5 T	5

10. Existing Facilities: Vishakhapatnam Port has two major components, viz., the Inner and Outer Harbour. The Outer Harbour is accessed through an approach channel that is 3.1 km long, 200m wide, and 22m deep. This leads to a turning circle of 610m diameter with dredged depth of (-) 21 m C.D. The Outer Harbour is an artificial harbour with a total water spread area of 200 hectares. Its basin is protected by two breakwaters, the 1070m long Eastern breakwater and a 1540m long Southern breakwater. It accommodates 6 berths and can accommodate fully laden cape-size vessels of 320 m LOA, 50 m beam, and 18.0m draft. The Inner Harbour is accessed through an extension of this approach channel, which is 1.1 km long (from Dolphin's Nose Light House); the width varies from a minimum of 111m to 168m and is 16.1m deep. This leads to a turning circle of 440 m diameter, and a dredge depth of (-) 16.1m C.D. The Inner Harbour is a natural harbour with a turning basin and three navigable arms—Northern, Western, and North-Western. The total water spread is about 100 hectares. It can accommodate fully laden Panamax vessels of 230m LOA, 32.5m beam, and 14.5m draft. Amongst the proposed development, the berths EQ-1, EQ-1A, EQ-6, and EQ-7 are part of the East Quay, and berths WQ-6, WQ-7, and 8 are part of the West Quay of the existing VPA facility. VPA owns 3 tug boats (bollard pull of 50 Ton each). Along with these tugs, it has also hired 3 tug boats with BPs of 65T, 60T, and 50T for port operations.

11. Land use/Landcover of project site: Berth and Backup area—3.7 acres (1.51 Ha), and Storage area for Cargo is 10.50 acres (4.24 Ha). The ownership of the land at Visakhapatnam Port is vested in the Visakhapatnam Port Authority (VPA), as per the Port Gazette GSR 451 (E). VPA is the authorized owner and custodian of the land within the port area.

12. Terrain and topographical features: The project location is at an elevation of 0m to 13m w.r.t the mean sea level (MSL). The area comprises mainly of coastal plain and the Pediment Pediplain complex. The upcoming project is for development on the landward side, with a core focus on modernizing the existing berths. The project encompasses the excavation of soil from the site and subsequent filling exclusively at the landward end.

13. Details of water bodies, impact on drainage: The major water bodies are Bay of Bengal, Meghadri Gedda River and Meghadri Gedda Creek.

14. Water requirements: The fresh potable water estimated to be 87 KLD will be utilized for domestic activities and will be sourced via GVMC (Greater Vishakhapatnam Municipal Corporation). During the construction phase, the project requires 44 Kilo Liters per Day (KLD) of water. During the operational phase, the water requirement includes 202 KLD for dust suppression, 7.2 KLD for potable purposes, and 18 KLD for gardening activities. Water requirement for dust suppression and gardening will be met from the existing STP of 10 MLD and the settling ponds available within the premises.

15. Waste Management: The estimated 13 TPA of Solid waste, 0.5 TPA of E-waste, and 1 TPA of battery waste (used lead-acid batteries) generated shall be disposed of through authorized vendors. The estimated 45 TPA Hazardous waste (2 TPA used oil and 43 TPA ballast water/ sludge containing oil from ships) shall be routed to the authorized re-processors. Wastewater: VPA has an existing STP of 10 MLD, and the sewage and effluent generated during the operation phase will be collected and directed to a single point with the existing available sewage line of VPA.

16. Tree cutting and Greenbelt development: The clearing of bushes/ scrubs may be required with the directive to prepare the site for construction. However, there is no tree cutting envisaged for the proposed project. A Greenbelt of width 5m shall be developed in 2 Ha area (0.06% of the total area), and 5000 local/ native tree species shall be planted for the same.

17. Diversion of forest land: The project does not involve any forest area. Therefore, forest clearance is not required. However, Kailasakonda (Kailasagiri) Forest—3.00 Km NE, Yerrakonda RF—8.32 Km NW, and Sitakonda RF—7.66 Km NE. Mangrove habitat spans approximately 55 hectares is located at the distance of 2.66 Km, towards SW direction within the jurisdiction of the Visakhapatnam Port Trust, extending towards the Visakhapatnam Airport. However PP mentioned that the proposed modernization is planned for the landward side of existing berths, ensuring no adverse impact on the existing mangroves from the proposed development.

18. The southern boundary of the Kambalakonda Wildlife Sanctuary is located approximately 6.36 km north of the project site. MoEF&CC notified the ESZ boundary vide Notification S.O.1366 (E) dated 28th April, 2017, as per the said notification, the project site does not fall within the ESZ of the Sanctuary. However, within the study area of the project few endangered species Leopards, Sambar deer, and pangolin are identified.

19. CRZ Area Details: The CRZ mapping of the project area is carried out by the National Centre for Sustainable Coastal Management (NCSCM), Chennai, during May 2022 as per CRZ notification 2011.

Sl.No.	Proposed/ Existing Activities	Proposed Area (sq.m.)	Proposed Area (ha)	Area of Proposed activity falling within the CRZ category
1	EQ 6 Berth and Backup area	15103.59	1.51	CRZ II
2	EQ 6 Stackyard area	61.12	0.0061	CRZ II

The proposal was granted CRZ recommendation from the State Coastal Zone Management Authority (APCZMA) vide their letter No. 532/CRZ/CON/2023- dated 12-04-2024 for capacity optimization from 2.5 to 2.62 MTPA.

20. IRO, MoEF&CC, Vijayawada has conducted the site visit and issued the Certified Compliance Report vide letter bearing F. No. SO/VIJ/EPA/EC-A/101/VSKP-02/2025/61 dated 27.02.2025.

21. Details of shoreline change: The proposed project has been planned on shore, and there is no dredging, reclamation, and marine disposal involved. Further, VPA has an existing Oil Spill Contingency plan, which is being followed on site.

22. Details of fishing activity in the vicinity: Fishing Harbour is located 1.38 Km towards the South-East direction. There are 10 fishing villages and hamlets on the coastline of the Visakhapatnam district. According to the marine fisheries census of 2010, there are 63 marine fishing villages and 66 landing centres in Visakhapatnam district. There are 70 fishermen's cooperative societies with 10,996 members in Visakhapatnam.

23. Land acquisition and R&R issues involved: No additional land is required for the proposed modernization. Therefore, no land acquisition or rehabilitation is envisaged.

24. Employment potential: About 475 people during the construction phase and 384 people during the operational phase would be temporarily employed, while 50 people would be permanently employed during the operational phase.

25. Benefits of the project: The modernization of Vishakhapatnam Port by providing a mechanized handling facility would increase handling capacity and attract substantial volume from nearby ports. This will play a vital role in enhancing the economy and livelihood status. To develop global standard ports in India, Maritime India Vision (MIV) 2030 has identified initiatives such as developing world-class Mega Ports, transshipment hubs, and infrastructure modernization of ports. These initiatives would help in lowering overall operational costs of ports, reducing turnaround time for vessels, increasing efficiency and throughput, providing the ability to handle larger ships, and developing Indian ports' strategic importance in the South Asian region. The fully mechanized operations will efficiently improve cargo handling at the port, but would also reduce the entrainment of fugitive emissions, as well as the transfer of dusty cargo like coal in closed conveyors, which will directly improve air quality. Furthermore, deployment of automated mechanical instruments and improved semi-mechanization means, instead of manual handling during cargo loading/ unloading, will reduce the noise levels. The proposed development will result in direct and indirect employment of the local people for various port construction, operational activities, and associated and induced industrial developments. This would substantially improve the livelihood opportunities and living standards of the local people and, in general, act as a driving force for the economic upliftment of the entire region. This will be an opportunity for the local community to explore alternative livelihood sources.

26. Details of Court cases: OA No. 105 of 2023 SZ was filed before the Hon'ble National Green Tribunal (NGT), originally filed at the Principal Bench in Delhi and later transferred to the Southern Zone in Chennai under OA No. 105 of 2023 SZ, was disposed of on March 25, 2025. As the case is now closed, it is no longer an active matter.

27. The EAC based on the information submitted and clarifications provided by the project proponent had a detailed discussions during 397th meeting of Expert Appraisal Committee held on 04th April 2025, recommended the project for

grant of Environmental and CRZ clearance under 7(ii) of the EIA notification, 2006 as amended and CRZ notification, 2011 as amended subject to all specific conditions and Standard Conditions applicable for such projects.

28. 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 Clearance and CRZ clearance for 'capacity optimization from 2.5 to 2.62 MMTPA of the Existing berth EQ 6 of Visakhapatnam Port, over an area of 5.75 Ha located at Visakhapatnam by M/s Visakhapatnam Port Authority (VPA)' under 7(ii) of the EIA notification, 2006 as amended and CRZ notification, 2011 as amended subject to strict compliance of the following specific conditions, in addition to all standard conditions applicable for such projects.

29. This issue with the approval of the Competent Authority.

Copy To

- i. The Special chief Secretary to Government, Department of Environment, Forest, Science & Technology, Government of Andhra Pradesh, 4th Block, Ground Floor, Room No : 268, A.P Secretariat Office, Velagapudi, Andhra Pradesh- 522503.
- ii. Inspector General of Forests Ministry of Env. Forest and Climate Change, Integrated Regional Office, Vijayawada Green House, Gopalareddy Road, Vijayawada -520010, Andhra Pradesh.
- iii. The Additional Principal Chief Conservator of Forests (C), Aranya Bhavan, K.M. Munshi Road, Nagarampalem, Guntur-522004, Andhra Pradesh.
- iv. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- v. The Member Secretary, Andhra Pradesh Pollution Control Board (APPCB) D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010.
- vi. IA- Division, Monitoring Cell, MOEF&CC, New Delhi - 110 003.
- vii. Guard File/Monitoring File/Record File.

Annexure 1

Specific EC Conditions for (Ports, Harbors, Breakwaters, Dredging)

1. Specific Conditions

S. No	EC Conditions
1.1	The grant of Environmental Clearance (EC) for Modernization shall be subject to the outcome of the court proceedings.
1.2	Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011.
1.3	All the storage proposed in the CRZ area shall be in line with the CRZ notification, 2011.
1.4	The PP shall prepare a Mangrove Restoration and Conservation Plan in consultation with the state forest department and submitted to the IRO of MoEFCC along with its first 6-monthly compliance report. The plan shall be implemented at the project cost, and the status of the implementation of the same shall be submitted along with the subsequent six-monthly EC and CRZ compliance report. The conservation plan shall adhere to the strategies to restore and revive the mangrove areas through ecological restoration and re-densification.
1.5	PP shall prepare a plan to improve the Meghadri Gedda Creek and Meghadri Gedda River fragile ecosystem and a marine ecological restoration plan with the nationally reputed institute and submit

S. No	EC Conditions
	it to the IRO of MoEFCC along with its First 6-monthly compliance report. Periodical assessment on the status of the water quality of the creek, soil characteristics, etc., should be done by engaging reputed agencies having expertise in the field, and status report should be incorporated in six-monthly compliance reports.
1.6	The project proponent shall prepare the wildlife conservation and mitigation plan with a nationally reputed institute like ZSI, WII, or any other nationally reputed institute and submit it to the IRO of MoEFCC along with its First 6 monthly compliance report. The plan shall be implemented at the project cost, and the status of the implementation of the same shall be submitted along with the subsequent six-monthly EC and CRZ compliance report. All recommendations made in the wildlife conservation plan shall be implemented in consultation with the state forest department. The user agency shall also implement the recommendations made by the state forest department, if any, w.r.t. wildlife conservation plan.
1.7	Marine ecological monitoring and its mitigation measures for the protection of phytoplankton, zooplankton, macrobenthos, estuaries, sea-grass, algae, seaweeds, Crustaceans, fishes, coral reefs, and mangroves etc. shall be carried out.
1.8	The Project proponent shall ensure that no creeks or rivers are blocked or alter due to any activities at the project site and free flow of water is maintained.
1.9	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.
1.10	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 half-yearly compliance report.
1.11	All the recommendations and conditions specified by the Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter No. 532/CRZ/CON/2023- dated 12-04-2024 shall be complied with.
1.12	All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by the Central/State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea/coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP as committed by the project proponent. The treated wastewater shall be reused for landscaping, flushing, and/or HVAC cooling purposes, etc., within the development. The project proponent should also make alternate arrangements for situations arising due to the malfunctioning of the STP. There shall be regular monitoring of standard parameters of the effluent discharge from the STP under intimation to the SPCB.
1.13	Cargo handling area shall be provided with the adequate number of high-efficiency dust extraction systems. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
1.14	Storage of the cargo shall be accommodated with a Stacker reclaimed inside provided with DFS (Atomized Automatic Sprinkling System) including peripheral drainage system, internal roads, firefighting system, etc.

S. No	EC Conditions
1.15	The wind net should be erected in the upwind direction to reduce wind speed hitting the Anthracite coal, Iron and Cement. The wind net should not be erected as a rigid structure. It should be allowed to get sagged in order to avoid the swirling effect.
1.16	Effective safeguard measures, such as regular water sprinkling, shall be carried out in critical areas prone to air pollution and having a high level of particulate matter such as around loading and unloading points and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
1.17	The project proponent shall install at least 4 systems to carry out Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the port area at least at four locations (one within and three outside the port area at an angle of 120° each), covering upwind and downwind directions.
1.18	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 with the prescribed fugitive emission standards.
1.19	The project proponent shall abide by all the commitments and recommendations made in Form-II, EIA/EMP report, and also that have been made during their presentation to EAC.
1.20	Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL 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. The provisions of the Solid Waste Management Rules, 2016, E-Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.
1.21	There should not be any groundwater extraction in the CRZ areas.
1.22	The Hazardous waste generated shall be properly collected and handled as per the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
1.23	The wastewater generated from the activity shall be collected, treated, and reused properly.
1.24	No Solid Waste will be disposed of in the Coastal Regulatory Zone area. The Solid Waste shall be properly collected, segregated, and disposed as per the provision of Solid Waste Management Rules, 2016.
1.25	The project proponent shall install necessary oil spill mitigation measures in the shipyard.
1.26	No hazardous chemicals shall be stored in the Coastal Regulation Zone area.
1.27	The Project Proponent (PP) shall conduct health impact studies through a reputed institute to assess the effects on the local community and evaluate the effectiveness of proposed mitigation measures.
1.28	Project Proponent shall strive to enhance the Green Belt beyond 33% and that the trees planted in

S. No	EC Conditions
	this regard would be planted under the campaign" एक_पेड़_माँ_के_नाम ", and the details of the trees planted would be uploaded on the portal https://merilife.nic.in .
1.29	The Project Proponent (PP) shall conduct training and capacity building for personnel involved in oil spill response and hazardous waste management.
1.30	Necessary approvals be taken during implementation and commissioning from statutory bodies concerned.

Standard EC Conditions for (Ports, harbors, breakwaters, dredging)

1. Statutory Compliance

S. No	EC Conditions
1.1	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.
1.2	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.
1.3	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.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	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 the project area at least at four locations, covering upwind and downwind directions.
2.2	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.
2.3	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.
2.4	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.

S. No	EC Conditions
2.5	The Vessels shall comply the emission norms prescribed from time to time.
2.6	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.
2.7	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.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	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.
3.2	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.
3.3	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.
3.4	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
3.5	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
3.6	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.
3.7	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.
3.8	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.

S. No	EC Conditions
3.9	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.
3.10	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
3.11	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.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	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.
4.2	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 equipments.
4.3	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.
4.4	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.

5. Energy Conservation Measures

S. No	EC Conditions
5.1	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;
5.2	Provide LED lights in offices and project areas.

6. Waste Management

S. No	EC Conditions
6.1	Dredged material shall be disposed safely in the designated areas.
6.2	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.
6.3	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it

S. No	EC Conditions
	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.
6.4	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
6.5	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.
6.6	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.
6.7	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.
6.8	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.

7. Green Belt

S. No	EC Conditions
7.1	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
7.2	Top soil shall be separately stored and used in the development of green belt.

8. Marine Ecology

S. No	EC Conditions
8.1	Dredging shall not be carried out during the fish breeding and spawning seasons.
8.2	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
8.3	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
8.4	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.

S. No	EC Conditions
8.5	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.
8.6	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.
8.7	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

9. Public Hearing And Human Health Issues

S. No	EC Conditions
9.1	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.
9.2	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.
9.3	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDf.
9.4	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.
9.5	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.6	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
9.7	Occupational health surveillance of the workers shall be done on a regular basis.

10. Environment Responsibility

S. No	EC Conditions
10.1	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.
10.2	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.
10.3	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
10.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

11. Miscellaneous

S. No	EC Conditions
11.1	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.
11.2	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.
11.3	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.
11.4	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.
11.5	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.
11.6	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral

S. No	EC Conditions
	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.
11.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.8	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.
11.9	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
11.10	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.
11.11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory 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.
11.12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.13	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.
11.14	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.
11.15	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.

12. Specific Conditions

S. No	EC Conditions
12.1	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

Additional EC Conditions

i. The Special chief Secretary to Government, Department of Environment, Forest, Science & Technology, Government of Andhra Pradesh, 4th Block, Ground Floor, Room No : 268, A.P Secretariat Office, Velagapudi, Andhra Pradesh- 522503.

- ii. Inspector General of Forests Ministry of Env. Forest and Climate Change, Integrated Regional Office, Vijayawada Green House, Gopalareddy Road, Vijayawada -520010, Andhra Pradesh.
- iii. The Additional Principal Chief Conservator of Forests (C), Aranya Bhavan, K.M. Munshi Road, Nagarampalem, Guntur-522004, Andhra Pradesh.
- iv. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- v. The Member Secretary, Andhra Pradesh Pollution Control Board (APPCB) D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010.
- vi. IA- Division, Monitoring Cell, MOEF&CC, New Delhi - 110 003.
- vii. PARIVESH Portal
- viii. Guard File/Monitoring File/Record File.

