सत्यमेव जयते

File No: 10/77/2023-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Date **10/03/2025**

To,

Shalin Shah
MARINE INFRASTRUCTURE DEVELOPER PRIVATE LIMITED
4th Floor, Ramcons Fortuna towers, No.1/2, Kodambakkam High Road, Nungambakkam, Chennai, Tamil Nadu-600034
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Subject: **The proposal is for the 'Development of Berth 4 & 5 at Kattupalli Port over an area of 136.28 Ha. The project site is located in Kattupalli Village, Ponneri Taluk, Thiruvallur District, Tamil Nadu by M/s Marine Infrastructure Developer Private Limited (MIDPL)'–Environmental and CRZ Clearance reg.**

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/TN/INFRA1/518970/2025 dated 21/01/2025 for grant of prior Environmental and CRZ Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and CRZ notification, 2011 as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC25A3501TN5487935N
(ii) File No.	10/77/2023-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	Environmental/CRZ Clearance for development of Berth 4 & 5 at Kattupalli Port
(viii) Name of Company/Organization	MARINE INFRASTRUCTURE DEVELOPER PRIVATE LIMITED
(ix) Location of Project (District, State)	THIRUVALLUR, TAMIL NADU
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per	No

3. The proposal is for the Environmental and CRZ Clearance for the Development of Berth 4 & 5 at Kattupalli Port over an area of 136.28 Ha. The project site is located in Kattupalli Village, Ponneri Taluk, Thiruvallur District, Tamil Nadu by M/s Marine Infrastructure Developer Private Limited (MIDPL).

4. The Kattupalli Port is located towards North of Kamarajar (Ennore) Major Port near Kattupalli Village, Ponneri Taluk, Thiruvallur District, Tamil Nadu (Latitude: 13°18'52.74" N, Longitude: 80°20'10.97" E). Tiruvallur District, Tamil Nadu. The project site extends between Chennai Water Desalination Limited (CWDL) in the North, Ennore Port in the South, the Bay of Bengal in the East, and Buckingham Canal in the West. Port limits were declared by Govt. of Tamil Nadu vide G.O.(Ms) No.194 dated 01.08.2008. The land area allocated for the Kattupalli port is about 136.28 ha (336.75 Acres) [130.21 ha (321.75 Acres) of Revenue Land and 6.07 ha (15.0 Acres) of Coastal land], the same land will be utilized for the proposed development. Hence, no additional land area is required for the proposed development.

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 total capital cost is estimated to be Rs.2,100 Cr.

6. The Environmental and CRZ Clearance for the existing port was obtained on 03.07.2009 by M/s L&T Ship Building Limited (LTSB) for Shipyard cum Port Complex at Kattupalli, Thiruvallur District, Tamil Nadu vide letter no.10-130/2007-IA.III. Further, an amendment w.r.t. dredging was obtained from MoEF&CC dated 12.05.2010. Subsequently LTSB obtained an extension of validity and amendment to handle revised cargo traffic at the Kattupalli Port in EC & CRZ clearance from MoEF&CC dated 17.12.2014. However, considering the divergent nature of business of LTSB and to harness the potential for growth with clear focus on port business, LTSB had approached the Hon’ble National Company Law Tribunal (NCLT), Chennai with a Scheme of arrangement for demerger of port business of LTSB into a separate company Viz., M/s Marine Infrastructure Developer Private Limited (MIDPL). The Hon’ble NCLT after careful examination of the scheme had accorded its approval on March 20, 2017. Pursuant to the said NCLT Order, the Port business in Kattupalli Shipyard cum Port Complex on a going concern basis together with the identified port assets, powers, sanctions, approvals, registrations, etc., stands transferred and vested with MIDPL. Accordingly, LTSB had approached MoEF&CC to bifurcate the existing Environmental and CRZ Clearance in the name of L&T Shipbuilding for Shipyard and MFF-related activities and in the name of MIDPL for Port and common infrastructure-related activities. Environmental and CRZ Clearance bifurcation was completed on the mutually acceptable division of responsibilities between LTSB & MIDPL and bifurcated EC was granted to MIDPL vide letter no. F. No.10-130/2007-IA.III dated 09.02.2018. Thereafter MIDPL obtained a change in Product Mix to cater to the needs of port users without change in the overall approved handling capacity of 24.65 MTPA in the EC & CRZ clearance dated 10.10.2022. Consent to Operate was obtained from the Tamilnadu Pollution Control Board (TNPCB) (Ref: Consent Order No. 2105136876761) dated 13.09.2021 valid till 31.03.2026.

7. The Terms of Reference (ToR) for the proposed development of Berths 4 & 5 components over an area of 136.28 Ha was issued vide letter bearing F. No.: 10/77/2023-IA.III, dated 13.02.2024. The instant proposal was granted ToR exempting the PH as per SO dated 18.03.2021 where the project has implemented more than 50% of construction to develop Berths 4 & 5 with associated dredging activities to increase in depth of berth and navigational areas (inline to approved in EC).

8. Earlier for Port development five berths were approved, out of which three berths were constructed and presently in operation. Berths 1, 2 and 3 are being used. Now, MIDPL proposes to develop remaining approved two (02) berths (Berth No. 4 and Berth No. 5), converting the Berth no.3 in to container berth, craft berths, port craft facilities and associated backup yard facilities, along with dredging port areas from (-) 16 m to (-) 16.7m and Navigational channel from (-) 16.0 m to (-) 17.5 m, to match the huge potential requirement of container, liquid, and bulk business. Type of berth and type of cargo is a commercial and business requirement without changing the overall handling capacity of 24.65 MTPA as approved in the EC & CRZ clearance.

9. Cargo Handling Details: The details of approved cargo mix are as follows:

Cargo Handling (MTPA)	Final Handling Capacity after Amendment (MTPA)
Containers	16.64
Ro-Ro–Automobiles	0.07
Project Cargo	0.44
Break Bulk/ General Cargo (Barytes/ Gypsum/ Limestone/ Granite/ Steel Cargo/Rock Phosphate/ Dolomite/ Bauxite)	5.00*
Edible Oil, CBFS, Base Oil, Lube Oil, and Non-Hazardous Liquid Cargo	2.50**
Total Handling Capacity at Port	24.65

10. Land use/Landcover of project site: The Land use of the project site is an Industrial Land of 136.28 Ha. No additional land is required for the proposed development. The proposed development of the Berth 4 & 5 is proposed at seaward side. The proposed cargo storage area is planned beyond the CRZ area. The change in land use pattern will be limited to the proposed berth area development as per approved land use of the project. The details of land use for the Existing and Proposed Development are as follows:

Description	Existing/Approved Land Use (Ha.)	Land use after proposed Development (Ha.)	Remarks
Container Terminal	32	40.6	Additional cargo storage area of 8.6 Ha is proposed as part of the present proposal.
Ro-Ro Terminal	7	7	There is no change.
Project Cargo	20 (including both open and covered Storage)	20	
Break bulk/ General Cargo			
Liquid Terminal	19	19	

11. Terrain and topographical features: The general topography of the area is plain with few undulations. The land area in the study area is flat while some parts of the study area are undulated and some of the areas are hilly. The sandy strip of the coast is replete with casuarina plantations.

12. Details of water bodies, impact on drainage: Natural drainage of the Kattupalli and its surrounding area is being maintained through Kosisttalaiyar River through direct discharge to the Bay of Bengal. Kattupalli port backup area falls between Kosisttalaiyar River, Buckingham Canal, and the Bay of Bengal. Kattupalli Port has a well-developed stormwater drainage network and it will be sufficient to cater to the proposed development. There are seasonal water bodies present in the form of lakes and ponds. Details of nearby water bodies are as follows:

Sl. No.	Water bodies	Distance & Direction
1	Buckingham Canal	~0.05 Km, W
2	Bay of Bengal	Adjacent, E
3	River Kosisttalaiyar (Tidal influenced)	~0.03 Km, S
4	Korattalaiyar River	~9.4 Km, SW
5	Aranai River	~8.5 Km, NW

13. Water requirements: Water requirement during the construction phase is 81 KLD and will be sourced from the existing water supply facility of the port. The net total daily raw water requirement or make-up water during the operation phase will be about ~1.8MLD. Kattupalli Port is sourcing Desalinated water of maximum withdrawal of 0.3 MLD from Chennai Water Desalination Limited (CWDL) of Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) through LTSB located 0.06 km from the site and the additional requirements will be met through the same source. The raw water at the port is used for washing, general activity and firefighting purpose. The raw water is stored in the sump of capacity 1000 KL near the immigration building. An overhead tank of capacity 160 kL is provided adjacent to the sump. Three raw water tanks are provided at the port. The first tank of capacity 10 m3 is located at the terrace of the administrative building. The second tank of capacity 40 m3 is located at the terrace of the port operational building. The third tank of capacity 5 m3 is located at the terrace of the customs building. The withdrawal of groundwater is not envisaged as a part of the proposed development. the details of water requirement is as following.

Sl. No.	Description	Unit	Number of Persons/ Quantity	Water Demand Per Unit (LPD)	Total water requirement (KLD)
A	Water Required for Utilities at Terminal				
i.	Manning for administrative and management staff	Nos.	275	45	12.4
ii.	Manning for operation and maintenance (Cumulative for all Shift)	Nos.	900	45	40.5
iii.	Manning for common Utilities	Nos.	250	45	11.3
iv.	Truck drivers and visitors	Nos.	200	35	7.0
				Total (A)	71.1
B	Water Required for Vessel Supply				
i.	Supply to Vessel for Operations & Tugs	Nos.	3	75000	225
ii.	Supply to Vessel for Domestic utilization (@8 Persons on board for 10 days per vessel; say 80 man-days)	Nos.	240 (80 x 3)	135	32.4
				Total (B)	257.4
C	Water Required for Truck Washing and Other Miscellaneous Activities				
i.	Other miscellaneous activities including washing, cleaning, mobbing, Gardening, etc.	Nos.	1	3000	3
				Total (C)	3
	SUBTOTAL OF A+B+C				331.5
D	Water Required for Firefighting System and DSS Facility				
	For firefighting system and DSS	Nos.	1	1430	1430
				Total (D)	1430
	Total Water Requirement in MLD-Grand Total of (A+B+C+D)				1761.5~1.8

14. Waste Management: The solid waste generation including 2 TPA MEE output in powder form and 47.45 TPA non-hazardous municipal solid waste, and 0.3 TPA STP sludge which will be disposed in TSDF,. 0.5 TPA E-waste and 1 TPA battery waste will be disposed through approved recyclers. 1.02 TPA Biomedical waste will be disposed as per BMW Rules, 2016. 2276 TPA Hazardous waste including Used or Spent Oil, Sludge and filters contaminated with oil, Empty barrels/containers/liners contaminated, Waste or residues containing oil, Cargo residue, wash water and sludge containing oil, Chemical sludge from wastewater treatment, Sludge from treatment of wastewater, and Contaminated cotton rags or other cleaning material, etc. will be disposed through authorized recyclers/TSDF. Wastewater: Three Sewage Treatment Plants (STPs) of capacity 30 KLD, 10 KLD, and 5 KLD are provided at the port and additionally got approval for 50 KLD of STP during change of product mix proposal (to be implemented). An effluent treatment plant (ETP) of 50 KLD capacity is operating at the site to treat the effluent generated from tank wash areas and additionally got approval for 100 KLD of ETP during the change of product mix proposal (to be implemented). STPs are in continuous operation and the treated effluent water quality are based on the Fixed Bed Bioreactor (FBBR) technology is meeting the TNPCB prescribed standards. All STPs treated water is used for Gardening purposes only. The ETP scheme is proposed with primary, Secondary, and Tertiary treatment. The secondary treatment is based on Sequential Batch Reactor (SBR) technology. Tertiary treatment includes Two Stage Reverse Osmosis (RO) with a Multiple Effect Evaporator (MEE) to handle the RO Reject and to ensure the complete recycle and reuse of treated wastewater. To avoid the possibility of oil contamination in harbour basin, the wastewater collected from the port is processed through the oil water separator of 3 KLD capacity. Sewage generated from toilet blocks, canteens, etc., and effluent generated from liquid tank washing, ship waste reception facilities, etc. will be treated in the STPs & ETPs. At present, 100% of treated sewage is being utilized for greenbelt development and dust suppression systems.

15. Tree cutting and Greenbelt development: The proposed development does not envisage any cutting of trees. A Greenbelt of 2.5m width is proposed in 1.01 Hectares (33.09% of Total Area) and it is estimated that approx. 27407 nos. of trees shall be planted for the proposed greenbelt. However, Sparse Mangroves are located 0.7 km from the port. Mangroves need not to be cut during port construction. Further PP also mentioned that an amount of Rs.10 Cr will be accommodated to develop mangrove plantation in consultation with the TNPCB and the State Government.

16. Diversion of forest land: The project does not involve any forest area. Therefor forest clearance is not required.

17. The project is not located within 10 km of Protected Areas (PA) including National Parks, Sanctuaries, and Tiger Reserves, etc. The project is also not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC. Sparse Mangroves are located 0.7 km from the port. Indian peafowl is listed as Schedule-I species reported near the seashore of Pulicat Lake which is 12 km aerial distance from the project boundary.

18. The proposed project site is not located proximity to Critically Polluted area as identified by the CPCB.

19. Details of Rainwater Harvesting: Rainwater harvesting system has been provided in all port buildings. Percolation Pits are provided in 17 locations in port area.

20. Energy conservation measures with estimated saving: Sustainability Practices such as all diesels operated Rubber Tyred Gantry Cranes (RTGs) are converted into electrified RTGs, which leads to lesser consumption of fuel thus minimizing the carbon footprint of the equipment to a certain extent; Kattupalli port installed 1MWp capacity Solar Power facility in Roof Tops and along Northern Breakwater. Also, Biomass Plant with a capacity of 6m3/Day with Gas output of 3 Kg/Day to treat Canteen Food Wastes & Vegetable peels in canteen area is operational. About 12,60,000 Units per annum is being generated and used for port operations.

21. CRZ Area Details: The CRZ Mapping and physical demarcation of HTL and LTL has been carried out by the Indian Institute of Remote Sensing (IRS), Anna University, Chennai. The port layout was superimposed on the CRZ map based on approved CZMP as per CRZ Notification, 2011. The proposed project development falls in CRZ-III NDZ, CRZ-IV A.

Sl. No.	Proposed Development	CRZ area Classification
1	Proposed Berths 4 and 5 and conversion of Berth 3	CRZ-IVA
2	Dredging/ Offshore Disposal	CRZ-IVA
3	Pipeline for liquid cargo transfer	CRZ-III NDZ and CRZ-III 200m to 500m HTL, CRZ-IVA

MIDPL has obtained the CRZ recommendations for the project from the Tamil Nadu Coastal Zone Management Authority (TNSCZMA) vide letter No. P1/1679/2024 dated 24.12.2024.

22. IRO, MoEF&CC, Chennai has conducted the site visit and issued the Certified Compliance Report vide letter bearing F.No.EP/12.1/2017-18/35/TN/504 dated 12.04.2024.

23. Details of shoreline change: DHI, Chennai had carried out Shoreline change analysis. Accretion and erosion on the shoreline were analyzed using GIS by measuring the difference in past and present shoreline locations. Erosion and accretion rate for the study area were analysed using DSAS (Digital Shoreline Analysis System). 35 years shorelines have estimated in LRR statistics which reveals that more positive shoreline change (42%) has been experienced at an average rate of +2.59 m/yr (medium accretion), negative shoreline change is 28% at an average rate of -2.58 m/yr (medium erosion) and the rest of 30% is stable coast. In zone 1, the period between 1988 to 2022, it is observed that about 64% of accretion observed at the southern part of Sriharikota with an average rate of +1.25 m/yr (low accretion) and 16 % of stable coast with an average rate of 0.12 m/yr is noticed in the Southern region of Sriharikota Coast and 20% of Erosion with an average rate of -2.68 m/yr (medium erosion) observed in Northern region of Sriharikota Coast. In zone 2, the shoreline shows 41 % of the area as accreting mainly in the southern part of Pulicat lagoon, 21% of the area has experienced erosion with an average erosion rate of -3.5m/yr (medium erosion) in the northern part of Pulicat lake river mouth and the rest 38% has stable coast. In zone 3, more percentage of the shoreline has experienced erosion (42%) with an average rate of -3.73m/yr (medium erosion) with an average rate of +0.074m/yr, followed by stable coast (32%) and positive shoreline change (26 %) with an average rate of +7.42m/yr (high accretion). From the results of the DSAS LRR and field survey, it has been examined that the north Kattupalli coast has a severely eroding coast when compared to Karungali and Ennore Coast.

24. Breakwaters: Existing two shore-based breakwaters having East opening are providing necessary tranquil conditions inside the port. The northern breakwater is of length 1775m and extends up to (-) 9m contour and the southern breakwater extends up to (-) 11m contour for a length of about 1665m. Approach Channel: The approach channel is aligned in the South-East direction. The outer approach channel is of length 2325m and 180m wide. The inner approach channel is 910m

long and 215m wide. The dredge depth available at the approach channel and inner approach channel is (-) 16 m CD. Turning Circle: One turning circle of 580m diameter is provided at Kattupalli port for manoeuvring of vessels. The depth of the turning circle is (-) 16 m CD.

25. Dredging and Reclamation: During initial development, dredging was carried out and used for reclamation and the annual maintenance dredge spoil of ~0.46 MCM per year is being disposed at the identified offshore disposal location as per the accorded EC & CRZ permissions for Kattupalli Port. The dredging quantity required for the proposed development is ~1 MCM and the same will be disposed at the existing offshore disposal ground. The annual maintenance dredge quantity at the existing Kattupalli port is 0.98 MCM per year and the same will be disposed at the existing offshore disposal ground.

26. Maintenance Dredging: The study indicated that the total annual maintenance dredge volume at various sections of the Kattupalli port with proposed berths is 0.98 Mm3/year in comparison to the baseline condition quantity of 0.46 Mm3. The excess volumes of 0.5 Mm3 are due to the increase in the cross-section area and the respective water depths at the approach channel, turning circle, and basin area from the current conditions. The break-up of volumes with the proposed development is given below: To maintain a water depth of 17.5m w.r,t. CD in the approach channel of the Kattupalli layout, the predicted average dredging quantity is 0.69 Mm3/year with a bed level change of 0.95 m/year. To maintain a water depth of 16.7m w.r,t CD in the turning circle of the Kattupalli Port, the predicted average dredging quantity is 0.05Mm3/year with a bed level change of 0.20m/year. To maintain a water depth of 16.7m w.r,t CD in the basin area of the Kattupalli Port, the predicted average dredging quantity is 0.11Mm3/year with a bed level change of 0.45m/year. To maintain a water depth of 16.7 m w.r,t CD at the berth pocket 4&5 of the Kattupalli layout, the predicted average dredging quantity is 0.02 Mm3/year with a bed level change of 0.58 m/year. Thus, the proposed development of berths has led to an increase in the maintenance dredging volume to 113% when compared with the present conditions, due to the increase in water depths at the approach channel, harbour basin, and berth pockets. This will further be resulting in an extended maintenance dredging plan compared to the existing dredging scenario. Deepening the port facilities will most likely increase the siltation thereby increasing the need for maintenance dredging. The selection of dumping ground for dredge material should be such that the material disposed at the dumping ground should not come back to the port facilities. Further, the material shall be disposed of evenly at spoil ground to make sure that the depths should not reduce unevenly. The annual maintenance dredge volume for Kattupalli Port is predicted to be 0.98Mm3 /year covering the approach channel, turning circle, port basin, and berth pockets. Dredge material will be dredged using Trailer Suction Hopper Dredger (THSD) and will be disposed at the bottom of the designated spoil ground located 4.5km from the port entrance and having a surface area of 1.72 Sq.km. The average water depth at the spoil ground is 25.8m w.r.t MSL.

27. Details of fishing activity in the vicinity: About 1810 fishermen are living in a fishing village. Nearby fishing villages are Ernavoor Kupam, Indira Gandhi Kuppam, Kattupallikuppam, Light House Nadu Kuppam, Pasiyavaram, Thirumalai Nagar, Varivan Kuppam, etc.

28. The Oil Spill Contingency Plan (OSCP) has been prepared by Kattupalli Port by the requirements of the Government and is consistent with the National Oil Spill Disaster Contingency Plan (NOSDCP) directives which are the state plan for the response to an oil spill for any size.

29. Land acquisition and R&R issues involved: Land area of about 486 Ha has been allotted by TIDCO for the development of Kattupalli shipyard cum port area. Kattupalli port was allocated about 336.75 Acres (136.28 Ha) (321.75 Acres of Revenue Land and 15.0 Acres of Coastal land) and the proposed development of berths and storage area is within the existing Kattupalli port. No additional land is required as the proposed development is confined to the existing port area and hence, land acquisition is not envisaged.

30. Employment potential: During the construction phase, approximately 100 direct & 500 indirect workers will be employed. During the operation phase approximately 275 nos. of direct employees and 1350 nos. Indirect employees will be employed for the port operation. Further, an amount of Rs. 23.25 Cr. for Social Upliftment activities i.e., Education, Health, Sustainable livelihood, Community infrastructure development, etc., around the project site.

31. Benefits of the project: Social Benefits: The social infrastructure in the Project region is likely to change due to the creation of more job opportunities for the local people and avenues for income generation. The project will result in creating multiple opportunities for induced income generation. People will have higher income due to direct employment

as well as indirect employment and will have higher earning and buying capacities. All of these will result in improved socio-economic conditions. Better quality of educational and medical facilities for the local people. Financial Benefits: Enhancement of regional economy and socio-economic conditions. The project construction & operation will generate revenue for the State & Central Government by way of taxes, sharing of port revenue, etc. In addition, port development will attract investments into the region & will contribute to the economic growth of Thiruvallur District neighboring areas, Tamil Nadu State.

32. Details of Court cases: The instant proposal does not involve any court cases/ litigation.

33. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues during 389th meeting on 29th-30th January 2025, recommended the project for grant of environmental and CRZ clearance with stipulated specific conditions along with other Standard EC Conditions.

34. 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 'Development of Berth 4 & 5 at Kattupalli Port over an area of 136.28 Ha. The project site is located in Kattupalli Village, Ponneri Taluk, Thiruvallur District, Tamil Nadu by M/s Marine Infrastructure Developer Private Limited (MIDPL)' under the EIA Notification, 2006 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.

35. This issues with the approval of the Competent Authority

Copy To

1. Principal Secretary, Department of Environment, Climate Change and Forests Department, Government of Tamil Nadu, Environment, Climate Change and Forests Department Secretariat, Chennai 600 009.
2. Principal Chief Conservator of Forests, Head of Department, Forest Headquarters Building, Near Kannikapuram Checkpost, Guindy-Velacherry Main Road, Guindy, Chennai 600 032.
3. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, 1st Floor, Additional Office Block for GPOA, Shastri Bhawan, Haddows Road, Nungambakkam, Chennai – 600006.
4. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
5. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032.
6. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
7. Guard File/Record File
8. Notice Board.

Annexure 1

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

1. Specific Conditions

S. No	EC Conditions
1.1	No mangrove shall be cut or affected due to port construction. Further, Mangrove Restoration and Conservation Plan shall be prepared by the PP in consultation with the state forest department and submitted to IRO of MoEF&CC within six months along with first six-monthly monitoring report and progress of implementation of the plan shall be submitted along with subsequent six-monthly

S. No	EC Conditions
	compliance reports. An amount of Rs. 10 Cr. will be accommodated to develop mangrove plantation in consultation with the TNPCB and the State Government.
1.2	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. shall be carried out.
1.3	PP shall prepare a plan to improve the Ennore Creek and Kosasthalaiyar River fragile ecosystem and marine ecological restoration plan with the nationally reputed institute further, 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.
1.4	There shall be no dressing or alteration of the sand dunes present in the vicinity and the same shall be kept undisturbed. No alteration of natural features including landscape changes shall be undertaken for beautification, recreation, and other such purpose.
1.5	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.
1.6	The shoreline should not be disturbed due to dumping. Periodical studies on shoreline changes and coastal geomorphology shall be conducted and mitigation measures like living shoreline carried out in line with the conservation plan. The details shall be submitted along with the six-monthly monitoring report to the regional office of MoEFCC.
1.7	No dredging activity should be taken in Rocky areas to avoid any type of Disaster. Dredge management plan with automatic monitoring sensors in port area, and reclamation area to contain the impact of dredge spoil on the marine ecosystem to be developed and to be overseen by a nationally reputed institution like IIT, NIO, NCSCM, etc.
1.8	Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in a confined manner to reduce the impacts on the marine environment. Silt curtains shall be used to minimize the spreading of silt plumes during dredging using an online monitoring system. Turbidity should be monitored during the dredging. No removal of silt curtain unless baseline values are achieved.
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 yearly compliance report.
1.11	All the recommendations and conditions specified by the Tamil Nadu Coastal Zone Management Authority (TNSCZMA) vide letter no. P1/1679/2024 dated 24.12.2024. 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

S. No	EC Conditions
	is treated in the STP as committed by the project proponent. The treated waste water 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 malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.
1.13	At least a distance of 100 m shall be provided between intake of Chennai Water Desalination Ltd. (CWDL) and north edge of the northern breakwater as agreed in the meeting between the proponent and CWDL.
1.14	No underwater blasting is permitted.
1.15	The cargo handling area shall be provided with an 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.
1.16	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, fire-fighting system, etc.
1.17	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels 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.
1.18	The project proponent shall install at least 4 systems carry out to 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.
1.19	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 prescribed fugitive emission standards.
1.20	The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA, and EMP report, submissions made during the Public Hearing, and also that have been made during their presentation to EAC.
1.21	The greenbelt at least 5 to 10 m in width shall be developed mainly along the periphery of the project.
1.22	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 Solid Waste Management Rules, 2016. E- Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.

S. No	EC Conditions
1.23	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.
1.24	The waste water generated from the activity shall be collected, treated and reused properly.
1.25	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.
1.26	Project proponent shall install necessary oil spill mitigation measures in the shipyard.
1.27	No hazardous chemicals shall be stored in the Coastal Regulation Zone area.
1.28	Specific arrangements for rainwater harvesting shall be made in the project design and the rain water so harvested shall be optimally utilized.
1.29	Necessary approvals be taken during implementation and commissioning from statutory bodies concerned.
1.30	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, 2011 and its amendment. The facilities such as office building and residential buildings which do not require water front and foreshore facilities shall not be constructed within the Coastal Regulation Zone area.

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

S. No	EC Conditions
	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.
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

S. No	EC Conditions
	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.
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

S. No	EC Conditions
	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 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.
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/

S. No	EC Conditions
	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

S. No	EC Conditions
	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 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.

S. No	EC Conditions
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.

Signature Not Verified

Digitally Signed by : Dr Amardeep Raju
Member Secretary, MoEFCC (EC)

Date: 10/03/2025