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F.No.11-24/2022-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
IA-III Section (CRZ)

Indira Paryavaran Bhawan
Jor Bagh Road
New Delhi – 110003
Dated: 15th September, 2022

To

The Water Resources Department
Government of Tamil Nadu
Executive Engineer WRD
Araniyar Basin Division, Chepauk
Chennai, Tamil Nadu - 600 005
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Subject: Construction of training walls in the Northern and Southern sides of Ennore Creek/Inlet (South Side of M/s KPL Ltd) and deepening the Kosasthalaiyar River mouth for the sustainable opening of River mouth in Thiruvottiyur Taluk, Tiruvallur District Araniyar Basin Division, Chepauk, Chennai, Tamil Nadu by the Water Resources Department, Government of Tamil Nadu - CRZ Clearance - regarding.

Sir,

This has reference to your proposal No. IA/TN/CRZ/280969/2022 dated 30th June, 2022 on the above mentioned project proposal for CRZ Clearance, in accordance with the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 issued under the Environment (Protection) Act, 1986.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for CRZ Clearance to the project for Construction of training walls in the Northern and Southern sides of Ennore Creek / Inlet (South Side of M/s KPL Ltd) and deepening the Kosasthalaiyar River mouth for the sustainable opening of River mouth in Thiruvottiyur Taluk, Tiruvallur District Araniyar Basin Division, Chepauk, Chennai, Tamil Nadu by the Water Resources Department, Government of Tamil Nadu.

3. The proposal was considered by the Expert Appraisal Committee (EAC) for Infrastructure Development, Coastal Regulation Zone, Building/Construction and Miscellaneous projects, in its meeting held on 20/07/2022 through video conferencing. The project proponent and their consultant made detailed presentation and informed as under:

- (i). The Ennore Creek is a backwater located in Thiruvallur District, Tamil Nadu. The Araniyar River enters the Creek's Northern edge below Lake Pulicat and the Kosasthalaiyar River and the surplus course of the Puzhal Lake enters the Creek on the Southern side. The Ennore Creek is the primary source of livelihood for six fishing villages (Mugathuvara Kuppam, Kaatu Kuppam, Sivanpadaiveethi Kuppam, Nettu Kuppam, Thazhan Kuppam and Ennore Kuppam).
- (ii). The Seasonal circulation in the Bay of Bengal influences currents in the coastal waters. Currents move along the coast towards the North from March to October and move southwards from November to February. This phenomenon is also responsible for the sediment transport/littoral drift, which results in net sedimentation on the Southern side of any structure built on the coast.

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- (iii). The fishermen enter the sea travelling through Ennore Creek for fishing activity. Due to sediment transport rate and prevailing weather condition, sand bar is naturally closing the water flow in Ennore Creek, hampering the smooth movement of vessels, fishing activity and aquatic species.
- (iv). The Ennore Creek mouth remains closed almost throughout the year due to sand bar formation. This phenomenon is typical of the rivers on the East-coast of India due to along shore sediment processes. Due to periodical mouth opening, there is limited exchange at the creek mouth with the Sea waters of Bay of Bengal.
- (v). To comply with the Special Condition A. (ii) "Groins and other suitable structures should be constructed to prevent the closing of the mouth of Ennore Creek", as laid by MoEF, Gol, New Delhi Letter No. 10-28/2005 IA-III, dated: 19/05/2006 while according Environmental Clearance for the development of Terminals for Marine Liquids, Coal, Iron and Containers in Second Phase and associated Capital deepening at Ennore Port (Now, M/s Kamarajar Port Limited).
- (vi). Further, the MoEF, Gol, in Letter No. 10-28 / 2005 IA-III, dated:10/09/2007 and 10-28/2005 IA-III, dated:24.12.2014, had re-iterated to comply with all the conditions as prescribed in earlier Clearance Letter No. 10-28/2005 IA-III, dated: 19/05/2006, when M/s Kamarajar Port Limited, Chennai, had applied for further expansion and Modernisation of existing handling of Multi cargo container terminal at Kamarajar Port (formerly known as Ennore Port) in the Ennore Port Expansion Proposals.
- (vii). The coordinates of project as:

Training Walls	Starting Point	Ending Point
Northern Training Wall	13°14'7.5475"N 80°20'11.0497"E	13°14'7.9148"N 80°19'54.6221"E
Southern Training Wall	13°13'58.9445"N 80°20'6.0748"E	13°13'53.4149"N 80°19'54.1196"E

Point 1	13°14'9.12"N 80°19'56.58"E	Point 4	13°13'53.39"N 80°19'42.34"E
Point 2	13°13'57.12"N 80°19'55.90"E	Point 5	13°14'5.83"N 80°19'37.78"E
Point 3	13°13'56.72"N 80°19'52.55"E	Point 6	13°14'7.89"N 80°19'41.54"E

- (viii). As per the CRZ Notification 2011, the Institute of Remote Sensing, Anna University, Chennai, has prepared the CRZ Map as per approved CZMP w.r.t. CRZ Notification 2011. The CRZ area details are as under:

S. No.	CRZ Zone	Project Components	Permissibility as per CRZ Notification, 2011
1.	CRZ - IB	Northern Training Wall	3 (iv) (d)
2.	CRZ - IVA		
3.	CRZ - IVA	Southern Training Wall	

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(ix). No National Park / Wildlife Sanctuary / Reserve / Protected Forest within 10 Km radius of the project.

(x). The training Wall details are as under:

Location of Training Walls	:	Kosasthalaiyar River Mouth / Ennore Creek, Thiruvottiyur Taluk of Thiruvallur District, Tamil Nadu
North Training Wall Length	:	503m
South Training Wall Length	:	403m
Crest Width	:	5m
Length of the Deepening	:	Phase-I - 550m Phase-II - 1450m
Depth	:	(-)2.00m
Deepening Quantity	:	Phase-I - 5,30,300m ³ Phase-II - 10,69,700m ³
CRZ Classification of the project	:	Northern Training Wall - CRZ-IB - (area between Low tide line (LTL) and high tide line (HTL) and CRZ-IVA (The water area and the sea bed area between the Low Tide Line upto twelve nautical miles on the seaward side). Southern Training Wall - CRZ-IVA

(xi). The length of training walls at different depths as:

S.No	Contour Intervals (w.r.to CD)	Northern Training wall (Length in m)	Southern Training wall (Length in m)
1	2.5 to 2m	37	
2	2 to 1.5m	36	
3	1.5 to 1m	30	
4	1 to 0.5m	27	
5	0.5 to 0m	28	
6	0 to -0.5m	28	8
7	-0.5 to -1m	30	23
8	-1 to -1.5m	31	19
9	-1.5 to -2m	32	29
10	-2 to -2.5m	34	43
11	-2.5 to -3m	34	57
12	-3 to -3.5m	29	46
13	-3.5 to -4m	57	55
14	-4 to -4.5m	52	102
15	-4.5 to -5m	15	18
16	Head section	3	3
Total Length		503	403

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- (xii). The sand material dredged from the deepening activity will be disposed off to the South side of proposed Southern Training Wall near Nettukuppam and Thazhankuppam Villages for protection from sea erosion:

Details	Nettukuppam & Thazhankuppam	North of Kosasthalaiyar River Mouth	From North of Fishing Harbour upto Ernavoorkuppam	From South side of Southern Training wall upto Chinnakuppam
Quantity	36786m ³	279785m ³	778210m ³	279785m ³
Area	30655m ²	111914m ²	311284m ²	111914m ²
Avg. Depth	1.20m	2.50m	2.50m	2.50m
No. of Lorry loads	-	15692 Loads	43646 Loads	15692 Loads
Assuming No. of conveyance days	-	180 days	240 days	180 days
No. of loads / day	-	87 loads	182 loads	87 loads

- (xiii). The benefit of project implementation: Sand deposition at the Ennore Creek Mouth would be reduced from 3,34,950m³ to 28,000m³ annually (i.e., reduces to about 8.5%), thereby reducing the maintenance dredging cost.
- (xiv). The total Cost of Project is ₹121.80 Crores. The EMP cost during construction phase ₹42 lakhs per annum and Environmental Monitoring for Marine Ecology, soil, Air & Noise, etc. Cost is ₹20 lakhs per annum.
- (xv). The Tamil Nadu Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. 8508/EC-3/2022-1 dated 20/06/2022.

4. The Committee made detailed deliberation on the proposal and noted that due to location of Major port in the area and prevailing currents in the Bay of Bengal, sediment transport / littoral drift occurs, which result in sedimentation on the coast and river mouth. The Committee noted that the fishermen enter the sea through the Ennore Creek for fishing activity. The sand bar is formed at mouth due to interaction of littoral drift along the coast and reduction the tidal prism causing in reduction in water flow into the creek, hampering the smooth movement of vessels, fishing activity and marine species due to higher salinity. The Committee also observed that the project is important for flood mitigation during NE monsoon, as many areas adjoining creek are flooded due to closure of mouth/inlet of creek.

As per the CRZ Notification 2011, para 3 (iv)(d) "Measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structures for prevention of salinity ingress and freshwater recharge" is a permissible and regulated activity.

5. Based on the recommendation of the Tamil Nadu Coastal Zone Management Authority and considering the submissions made by the project proponent, the Ministry of Environment, Forest and Climate Change, in acceptance of the recommendations of the

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Expert Appraisal Committee (CRZ), hereby accords CRZ Clearance to the project for **Construction of training walls in the Northern and Southern sides of Ennore Creek/Inlet (South Side of M/s KPL Ltd) and deepening the Kosasthalaiyar River mouth for the sustainable opening of River mouth in Thiruvottiyur Taluk, Tiruvallur District Araniyar Basin Division, Chepauk, Chennai, Tamil Nadu by the Water Resources Department, Government of Tamil Nadu**, under the provisions of the CRZ Notification, 2011 and amendments thereto, subject to the compliance of terms and conditions as under:-

PART A – SPECIFIC CONDITIONS:

- (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii). No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and / or operation phase of the project.
- (iii). Salinity, Water Quality and Marine Ecology in creek to be monitored before and after opening of mouth for period not less than 3 years through reputed national institute.
- (iv). A comprehensive study on fisheries should be conducted through reputed national institute in the creek upto place of tidal ingress and reported. Changes in the fishery pattern also need to be studied for a period not less than 3 years.
- (v). The utilization of dredged material / sand shall be in accordance with the prevailing rules and regulations. Shoreline changes to be monitored on either side of training jetties and mitigation measures to be taken up, if significant impacts are noticed.
- (vi). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (vii). All the conditions stipulated by the Tamil Nadu Coastal Zone Management Authority for CRZ clearance *vide* its letter No. 8508/EC-3/2022-1 dated 20/06/2022, and commitments made by the PP before the CZMA and EAC shall be followed in letter and spirit.
- (viii). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

PART B - GENERAL CONDITIONS:

- (i). Management of solid waste in accordance with the Solid Waste Management Rules, 2016 shall be strictly implemented.
- (ii). 'Consent to Establish' and /or 'Consent to Operate' shall be obtained from State Pollution Control Board under the provisions of Air (Prevention and Control of Pollution) Act, 1981 and / or the Water (Prevention and Control of Pollution) Act, 1974, as may be applicable.
- (iii). Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of Competent Authority.



- (iv). All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by 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 waste water shall be reused for landscaping, flushing and / or HVAC cooling purposes etc. within the development. The project proponent should also make alternate arrangement for situation 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.
- (v). Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (vi). A copy of the clearance letter shall be uploaded on the website of the concerned State Coastal Zone Management Authority/State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries Centre and Collector's Office/ Tehsildar's office for 30 days.
- (vii). A six-monthly monitoring report shall need to be submitted by the project proponent to the concerned Regional Office of this Ministry regarding the implementation of the stipulated conditions.
- (viii). The Ministry of Environment, Forest & Climate Change or any other Competent Authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (ix). Full co-operation shall be extended to the officials from the Regional Office of MoEF&CC, during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned Regional Office of MoEF&CC.
- (x). In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
- (xi). The Ministry reserves the right to add additional safeguard measures subsequently, if considered necessary, and to take action to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner, including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, for non-compliance.
- (xii). All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective Competent Authorities.
- (xiii). The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board (SPCB) and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <https://parivesh.nic.in/>. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional Office of this Ministry.
- (xiv). A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xv). The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.

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