

F. No. 11-43/2010-IA.III
Government of India
Ministry of Environment & Forests
(IA-III Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003,

Dated: 29th October 2010

To

✓ **M/s Infrastructure Leasing & Financial Services Ltd.**
Tamil Nadu Power Company Ltd.,
B-Block, 4th Floor, Navin's Presidium,
103, Nelson Manickam Road, Aminjikarai,
Chennai - 600 029

Subject: Environmental and CRZ clearance for Captive port and desalination plant at Kohatai, Cuddalore District, Tamil Nadu by M/s Infrastructure Leasing and Financial services Ltd., Tamil Nadu - Reg.

This has reference to your letter dated 12.05.2010 seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006 and Coastal Regulation Zone (CRZ) Notification, 1991. The proposal has been appraised as per prescribed procedure in the light of provisions under the Environment Impact Assessment Notification, 2006 and Coastal Regulation Zone Notification, 1991 on the basis of the mandatory documents enclosed with the application viz., the Form 1, EIA, EMP, recommendation State Coastal Zone Management Authority and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 18th - 20th August, 2010.

2. It is interalia, noted that the proposal involves establishment of Captive port and desalination plant at Kohatai, Cuddalore District, Tamil Nadu for handling of coal for the proposed 3600 MW (2 x 600 MW sub-critical technology and 3x800 MW super critical technology) thermal power plant near Parangipettai in Cuddalore District, Tamil Nadu, India. Handling capacity of the Captive Port is 15 MTPA and Desalination Plant capacity is 30 MLD. The proposed Captive port is situated towards East & adjacent to the proposed thermal power plant and Captive Desalination Plant is proposed within the power plant premises. Total seawater required for the thermal power plant and captive desalination plant is 34,100 m³/hr which will be sourced from Bay of Bengal. Seawater intake and marine outfall locations are identified based on mathematical model studies and seawater intake is proposed between the break waters towards Northern side. The total quantity of hot water discharge from proposed power plant will be 25886 m³/hr and total quantity of reject brine from the proposed desalination plant will be 2381 m³/hr and the marine outfall is proposed towards North of northern breakwater, at 1500 m distance into the sea. Pipelines are proposed for intake & outfall arrangements of the power plant. The proposed port facilities



include Two breakwaters (Northern Breakwater - 2,100 m and a Southern Breakwater- 1,150 m), Dredged approach channel (3,300 m long, 160 m wide, -16.1 m CD to cater 80,000 DWT and facilities enhanced in future to receive 200,000 DWT vessels), Turning Circle (Dia 500 m and depth - 15.5 m CD), Two coal berths (total length 600 m and depth -15.5 m CD), Mechanical unloaders of rated capacity 4000 TPH on each berth and covered conveyor system for transport of coal to the power plant stack yard area. Coal will be unloaded using mechanical unloaders and will be conveyed using covered coal conveyors to the storage area proposed in the power plant area. The quantity of capital dredging is estimated as 11million cubic meter (MCM). The existing ground levels at the project site are about +1.5 m to +2.0 m CD. This needs to be raised to about +4.5 m CD in port area. About 1 MCM of suitable material from capital dredging will be used for dumping along the waterfront for leveling purposes and the balance shall be disposed off to Sea beyond 30 m contour at the disposal area that has been identified by mathematical model study carried out by DHI. Mathematical modeling studies for the littoral drift were carried out by HR Wallingford using COSMOS-2D. Based on this study, about 10,000 m³ per annum of siltation is expected at the channel and will be disposed off at the offshore dumping ground. Sand accretion of the order of 150,000 m³ per annum is expected on the south of south breakwater & this will be periodically dredged and transported to nourish the shoreline to the northern side of the port. The drift material could be accumulated in a sand trap provided on south of south breakwater but as the likely quantity is very small model studies recommended that the sand trap requirement is firmed up after monitoring in initial few years. If required, the sand trap of about 250,000 cum capacity would be provided. It would be periodically dredged during fair weather season of January to April using a small cutter suction dredger. A 40 KLD capacity of Sewage Treatment Plant (STP) is proposed to treat wastewater generated from canteen and port operations. Coal storage area of 208 acres considering 60 days storage requirement for the proposed thermal power plant is estimated. The maximum stack height of 10 m will be maintained from the point of view of safety against fires. In addition to this, dust suppression measures will be adopted to control fugitive dust emissions from coal storage areas.

Shoreline changes study for the project coast has been carried out by INCOIS, Hyderabad and the study using Landsat data depicts that the coastlines of the area are under "no change to accretion" effects & free from erosion. The same trend has prevailed from 1979 to 2008. National Institute of Oceanography (NIO), an authorized agency was engaged for demarcation of HTL, LTL and CRZ. As per the NIO report, the port boundary falls within 500 m setback line and the proposed project site boundary is 100 m away from the Buckingham canal on the West. The project development area does not fall or contain any environmentally sensitive areas. A detailed EMP has been prepared for the project and among other measures to mitigate the environmental impact, it is proposed to utilize the accretion quantity on the southern side and dredge spoil generated out of maintenance dredging for beach nourishment as required. The District and State Coastal Zone Management Committees of Tamilnadu considered the proposal for undertaking activities like intake-outfall pipelines, conveyor gallery structure

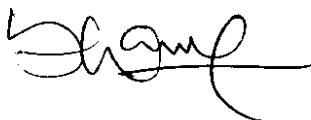
and other allied infrastructures within CRZ area and recommended the proposal vide their letter No 8209/EC-3/2010-1 dated 29-04-2010.

3. The TOR for the project was issued vide letter no. J-13012/34/2008-IA.II (T), dated July 9, 2008 for the integrated project. Public hearing was conducted on 05.02.2010 for the thermal power plant including the marine facility. The major issues raised are disturbance to the Pitchavaram and employment. It is proposed to conserve the mangroves through Department of Ocean Management, Annamalai University.

4. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental and CRZ Clearance for the project. Accordingly, the Ministry hereby accords necessary Environment Clearance and CRZ Clearance for the above project as per the provisions of Environment Impact Assessment Notification, 2006 and CRZ Notification, 1991 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:

5. SPECIFIC CONDITIONS:

- i) "Consent for Establishment" shall be obtained from Tamil Nadu Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.
- ii) No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- iii) The area selected for dumping of dredge spoil at a depth of 30 m contour shall be adequate to ensure that reduction in depth is not more than 0.50 m and appropriately demarcated during execution and a suitable field monitoring programme shall be submitted.
- iv) Once the breakwater is constructed, the Vellar river mouth is vulnerable to accretion and the mouth is likely to get closed due to prevailing coastal processes. The mouth also helps to drain large flood during northeast monsoon rain and cyclone. The tidal exchange through Vellar river mouth also supports the mangroves nested with Pitchavaram. The river mouth has to be maintained along with its natural hydrology and tidal prism and hence appropriate remedial action programme to keep the mouth open shall be monitored regularly and details shall be submitted to the Ministry.
- v) The volume of annual gross and net littoral drift reported for this coastal region where the breakwaters are proposed appear to be very low and probably needs to be confirmed by actual field data on waves and other accepted software tools. It is suggested to



undertake one year directional wave measurements to evaluate actual volume of littoral drift

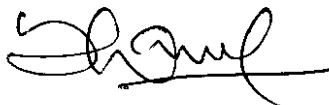
- vi) Programme for preservation of the existing mangrove on the southern side of the plant area lying within 10 km radius and proposed additional plantation shall be developed together with EMP and submitted.
- vii) The present EIA study is confined to the proposed project and does not cover the possible environmental issues arising out of developments at the adjacent areas. A comprehensive EIA study shall be taken up in future at each and every stage of expansion considering new developments in the close proximity of the ILFS project and the project proponent shall initiate action in this regard at appropriate time.
- viii) Proponent shall explore the possibility of sharing common facilities such as breakwater with immediate neighbor so as to optimize the resources and minimize cost on development and also impact on marine environment. Report shall be submitted within 3 months.
- ix) The project proponent confirmed that there would be no further developments apart from what has been shown in the layout (an approach trestle and two coal berths of 600m long on the seaward side within the enclosed basin formed by two breakwaters) and as such no development will be allowed without the prior environmental clearance.
- x) Wherever coastal front is available adjacent to the project site, Tsunami bund with natural beach sand / dredged sand shall be constructed to avoid flooding due to storm surge and similar natural causes.
- xi) A detailed monthly field monitoring programme by a reputed organization shall be carried out on the coastal process and marine environment for 10 km radius including Vellar river during construction and operational stages.
- xii) All the socio-economic factors such as medical facilities, employment opportunities, educational facilities etc. for the local people shall be implemented in full and reported to the Ministry in its regular reports on six-monthly basis.
- xiii) There shall be no intermediate coal storage facilities and the conveyor from the coal berths to the plant site shall be enclosed conveyor system to ensure minimum pollution due to coal dust and other suspended matter.
- xiv) All the recommendations of the EIA, EMP, Risk Assessment and Disaster Management Plan shall be strictly complied with.
- xv) The project proponent shall set up separate environmental management cell for effective implementation of the stipulated

environmental safeguards under the supervision of a Senior Executive.

- xvi) Sand by pass and nourishment of the coast on the northern side shall be carried out periodically and monitoring shall be conducted on the shore line changes.
- xvii) The project proponent shall take up mangrove plantation/ green belt in the project area, wherever possible. Adequate budget shall be provided in the Environment Management Plan for such mangrove development.
- xviii) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.

6. GENERAL CONDITIONS:

- i) Adequate provision for infrastructure facilities including water supply fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.
- ii) Full support shall be extended to the officers of this Ministry/Regional Office at Bangalore by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- iii) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bangalore regarding the implementation of the stipulated conditions.
- iv) Ministry of Environment & Forests 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.
- v) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- vi) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.
- vii) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.



- viii) A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.
- ix) Tamil Nadu Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/Tehsildar's office for 30 days.

7. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter.

8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

9. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Tamil Nadu Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bangalore.

10. Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

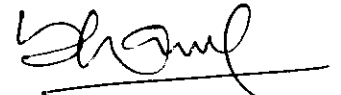
11. Any appeal against this Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

12. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

13. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

14. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

15. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.



(Bharat Bhushan)
Director (IA-III)

28.10.2010

Copy to:

- 1 The Principal Secretary, Department of Environment and Forests, First Floor, Panagal Building, Saidapet, Chennai – 600 015, Tamil Nadu.
- 2 The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
- 3 The Director, Department of Environment, Government of Tamilnadu, Panagal Building, Ground Floor, Saidapet, Chennai-15.
- 4 The Chairman, Tamil Nadu Pollution Control Board, No. 76, Mount Salai, Gundy, Chennai.
- 5 The Chief Conservator of Forests, Ministry of Environment and Forests, Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No. 3, Ravishankar Nagar, Bangalore – 462016 (M.P.)
- 6 Guard File.
- 7 Monitoring Cell.



(Bharat Bhushan)
Director (IA-III)

F.No.11-43/2010-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
(IA-III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 27th February, 2018

To,

The Chairman

M/s Infrastructure Leasing & Financial Services (IL&FS) Ltd,
Tamil Nadu Power Company Limited,
4th Floor, KPR Tower, Old No. 21, New No. 2, 1st Street,
Subba Rao Avenue College Road,
Chennai - 600 006

Email: ms.srinivasan@ilfsindia.com

Subject: Environmental and CRZ Clearance for Captive Port and Desalination Plant at Kottatti, Bhuvanagiri Taluka, Cuddalore District, Tamil Nadu by M/s Infrastructure Leasing & Financial Services (IL&FS) Ltd - Extension of validity of Environmental and CRZ Clearance - reg.

Sir,

This has reference to your online proposal No. IA/TN/MIS/67122/2010 dated 1st August, 2017 submitted to this Ministry for extension of validity of Environmental and CRZ Clearance granted vide letter No. 11-43/2010-IA.III dated 29th October, 2010 for 'Captive Port and Desalination Plant at Kottatti, Bhuvanagiri Taluka, Cuddalore District, Tamil Nadu in favour of M/s Infrastructure Leasing & Financial Services (IL&FS) Ltd, in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 and CRZ Notification, 2011.

2. The proposal for grant of extension of validity of Environmental and CRZ Clearance to the above referred project was considered by the Expert Appraisal Committee (Infra-2) in its 24th meeting held on 30-31 October, 2017.

3. The EAC in its 24th meeting held on 30-31 October, 2017 has recommended the project for grant of extension of the validity of EC&CRZ clearance issued vide letter dated 29th October, 2010 for a period of three years. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby extend the validity of Environmental and CRZ Clearance up to 28th October, 2020.

4. The extension of validity is being granted for the original proposals for which Environmental and CRZ Clearance was granted earlier. The project proponents will not make any changes in the project nature, structure or configuration and limit themselves to activities for which the Environmental and CRZ Clearance has been given earlier.

5. All other conditions stipulated in the Environmental and CRZ Clearance granted vide letter No. 11-43/2010-IA.III dated 29th October, 2010, shall remain unchanged.
6. This issues with the approval of the Competent Authority.



(Kushal Vashist)
Director

Copy to:

1. The Secretary, Department of Environment and Forests, First Floor, Panagal Building, Saidpet, Chennai – 600 015, Tamil Nadu.
2. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
3. The Additional Principal Chief Conservator of Forests, Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), Ist and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai - 34.
4. The Chairman, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai- 600 032, Tamil Nadu.
5. Guard File.
6. Monitoring Cell, MoEF&CC.



(Kushal Vashist)
Director