

Government of Maharashtra

No. SEAC-2009/CR.135/TC2
Environment department,
Room No. 217, 2nd floor,
Mantralaya Annexe,
Mumbai 400 032
Dated: 18th December, 2009

To,
M/s. L&T Seawoods Pvt. Ltd.,
Plot No. R-1, Sector 40,
Seawoods Railway Station Nerul Node,
Navi Mumbai.

Subject: Proposed "Integrated Seawood Project" at Seawood Railway Station, Navi Mumbai - Environmental clearance regarding.

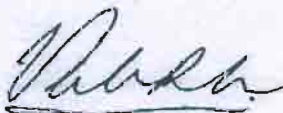
Sir,

This has reference to your communication dated 13th July, 2009 on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee (Maharashtra) in its 18th meeting and recommended your proposal for prior Environment Clearance to State Level Environment Impact Assessment Authority (SEIAA) without any condition. Subsequent information submitted by you, has been considered by State Level Environment Impact Assessment Authority in its 17th meeting held on 3rd December, 2009.

2. It is noted that the proposal is for grant of environmental clearance for Proposed "Integrated Seawood Project" at Seawood Railway Station, Navi Mumbai. SEAC considered the project under Category 'B2' of EIA Notification 2006, and screening category is 8(b).

Project information from documents submitted by you & considered by SEAC & SEIAA is summarized as below-

Name of the Project : Proposed "Integrated 'Seawoods Project" at Seawoods Railway Station, Navi Mumbai
Project Proponent : M/s. L&T Seawoods Pvt. Ltd.,
Location of the project: : Plot No. R-1, Sector 40, Seawoods Railway Station Nerul node, Navi Mumbai.
Type of Project : Construction project
The project proponent has been appointed by CIDCO as the developing agency for the proposed "Integrated Seawood Project" with an objective to upgrade the infrastructure of the existing Railway station and develop an integrated complex comprising of Rail Station, Retail & Commercial office spaces.
Total Plot Area : 1,62,002.83 sq. m
Total proposed construction area : 8,10,771 sq. m
Total FSI area : 2,43,004 sq. m (Commercial-1,40,684; shopping and retail -



73,251; Hotel & service apartment 24,415 & Entertainment:4,654)
Construction for Railways:43,579 sq. m

Estimated cost of the project : Rs.3,118 cr.

Water Requirement:

Construction phase: 350 m³/day **Source:** NMMC

Operation phase: 5768 m³/day (2858 m³/day from NMMC and 2910 m³/day from treated waste water) **Source:** Municipal water supply (NMMC)

Wastewater generated: Total waste water generation in the proposed activity is about 3063 m³/day Waste water from all the services except blow down from, Cooling tower, Gardening sector will be treated in STP. Blow down from cooling tower (740 cmd) will be discharged into NMMC drain. **STP capacity:** 3100 m³/day

Rain water Harvesting: 2 nos. of rooftop rainwater harvesting units of 500 m³ each, 46 nos. of surface rainwater harvesting pits. Capacity of each recharge pit is about 30 m³.

Solid Waste Generation:

Construction Phase:

During the construction stage, construction waste would be generated which would include debris, concrete, steel and other metals, bricks, pallets, packaging and paper products, railings, door and window casings, fixtures, tiles, furnishings etc. Approximately 1-3 MT/day debris will be generated.

Operation Phase:

During operation phase, 1MT/day of solid waste will be generated from hotels (@425g/person) and up to 17MT/day (@225g/person) of solid waste will be generated from commercial and entertainment areas.

STP sludge: 320 kg/day

Details of Solid Waste generation for proposed project:

Sr. No.	Source of Waste Generation	Waste Generated (MT)
1.	Shopping Mall	7.09 (@225g/person)
2.	Entertainment	1.88 (@225g/person)
3.	Business Park	8.17 (@225g/person)
4.	Service Apartments	0.061 (@225g/person)
5.	Hotel	0.77 (@425g/person)
Total waste generated		17.97 MT

Sr. No.	Waste Type	Collection and Storage	Method of Disposal
1	Biodegradable waste	Manual collection & storage in AC rooms at the ground level.	The segregated waste will be disposed to authorized municipal waste disposal site.
2	Non degradable and recyclable waste	Manual collection & storage in closed rooms at ambient temperatures.	

Solid Waste Disposal:

- All waste will be segregated and disposed off to authorized municipal solid waste disposal site;
- Dry STP sludge will be disposed to authorized municipal waste disposal site;
- Spent activated carbon from the ACF will be given back to the supplier for regeneration and recycle;

- Waste sand from the PSF will be disposed off within the site for ground levelling or as fill material for making pathways or for small construction work;
- Spent ion exchange resins from the softening plant will be given back to the supplier;
- Waste oil generated from the kitchen, separated at the oil separator in the kitchen will be disposed off to an approved waste oil vendor;
- Waste oil generated from DG set / other machinery overhauling and transformer oil replacement will be sold off to CPCB / MPCB authorized vendors for waste oil;
- Used lead-acid batteries will be disposed off by buy-back arrangement with suppliers

Energy: Construction phase:

Requirement: 1000 KVA

Operation phase:

Requirement: 53 MVA; Source: MSEDCL

Backup requirement: 9 Nos. x 3000 KVA

The DG sets will be Power Backup facility covering all essential services.

Energy Conservation:

- Use of solar energy for generation of hot water for kitchens and pantries and electrical energy for street lighting are being considered.
- Ventilation and Air Conditioning system has been provided with variable Speed Drive mechanism for energy saving during times of low load. Fresh Air intake control based on occupancy factor shall be provided. Building Management System for automated control will be implemented.
- To enhance the energy conservation while selection of building material following measures will be adopted:
 1. Use of recycled material (fly ash up to 20%)
 2. Maximum use of local resources & skills
 3. Reduction of transportation to extent possible
 4. Use of water based paints

Green Belt Development: 89,543 sq. m of area is reserved for green belt development The existing trees are 11 nos., and an additional 1610 nos. of trees are proposed to be planted.

Traffic Management: 1426 nos. of 2 – wheeler & 3765 nos. of 4 – wheeler parking shall be provided.

Environmental Management Plan: Total estimated cost of environmental infrastructure: capital EMP cost during operation phase shall be Rs. 1400 lakhs; capital EMP cost during construction phase shall be Rs. 122.0 lakhs.

Following measures should be taken for proper ventilation and lighting and to avoid flooding in the basements:

- **Ventilation in basements:** as specified National Building Code of India, all the basement areas would be provided with ventilation at 9 air changes per hour under normal conditions. Similarly smoke alarm conditions, the basement level would be provided exhaust at 30 air changes per hour as specified in NBC 2005.
- **Lighting in basements:** all the basements will be provided with adequate lighting meeting the requirements as specified in NBC 2005.
- **Flooding in basement :**
 1. Basement walls shall be raised by a minimum of 300 mm above the surrounding ground level to avoid any entry of water from outside.
 2. All the manhole entries and other openings to the basements shall be raised by minimum 300 mm above the surrounding ground level.



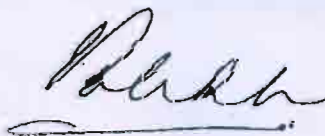
3. Provision of sumps at different locations in the basements shall be made to manage accidental spills/ overflows and provision shall be made for pumping the accumulated water from the sumps.

3. The proposal has been considered by SEIAA in its 17th meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :-

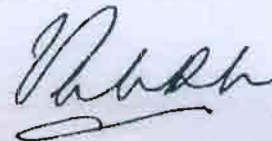
- (i) Project proponent should follow disaster management plan.
- (ii) The height, Construction built up area of proposed construction shall be in accordance with the existing FSI/FAR norms of the urban local body & it should ensure the same before approving layout plan & before according commencement certificate to proposed work. ULB should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.
- (iii) "Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
- (iv) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
- (v) A First Aid Room will be provided in the project both during construction and operation of the project.
- (vi) 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.
- (vii) Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
- (viii) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- (ix) Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (x) Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xi) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
- (xii) Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.
- (xiii) Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.
- (xiv) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.
- (xv) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.
- (xvi) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to



- applicable air and noise emission standards and should be operated only during non-peak hours.
- (xvii) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.
 - (xviii) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100Km of Thermal Power Stations).
 - (xix) Ready mixed concrete must be used in building construction.
 - (xx) The approval of competent authority shall be obtained for structural safety of the buildings due to any possible earthquake, adequacy of fire fighting equipments etc. as per National Building Code including measures from lighting.
 - (xxi) Storm water control and its re-use as per CGWB and BIS standards for various applications.
 - (xxii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
 - (xxiii) The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
 - (xxiv) The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/refused to the maximum extent possible. Treatment of 100% gray water by decentralized treatment should be done. Discharge of unused treated affluent shall conform to the norms and standards of the Maharashtra Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.
 - (xxv) Project proponent shall ensure completion of STP, MSW disposal facility prior to occupation of the buildings and should obtain completion certification for these systems/aspects from MPCB.
 - (xxvi) Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.
 - (xxvii) The Project proponent agreed for written commitment for handing over O & M of Environment Management Plan including STP after completion of the project and will provide corpus for at least 5 years while handing over to the society
 - (xxviii) Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.
 - (xxix) Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.
 - (xxx) Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
 - (xxxi) The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material
 - (xxxii) Use of glass may be reduced up to 40% to reduce the electricity consumption and load on airconditioning. If necessary, use high quality double glass with special reflective coating in windows.
 - (xxxiii) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement



- (xxxiv) Energy conservation measures like installation of CFLs /TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use 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. Use of solar panels may be done to the extent possible like installing solar street lights, common solar water heaters system. Project proponent should install, after checking feasibility, solar plus hybrid non conventional energy source as source of energy.
- (xxxv) Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation phase 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 low sulphur diesel. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.
- (xxxvi) Noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- (xxxvii) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- (xxxviii) Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement
- (xxxix) The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation
- (xl) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.
- (xli) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.
- (xlii) Six monthly monitoring reports should be submitted to the Department and MPCB.
- (xliii) A complete set of all the documents submitted to Department should be forwarded to the MPCB
- (xliv) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.
- (xlv) No land development / construction work preliminary or otherwise relating to the project shall be taken up without obtaining due clearance from respective authorities.
- (xlvi) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xlvii) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.
- (xlviii) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://envis.maharashtra.gov.in>.



- (xlix) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
- (l) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation 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.
- (li) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (lii) 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.
- (liii) 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.
- (liv) The environmental clearance is being issued without prejudice to the court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him.
4. Project proponent should submit exactly same documents for approval of building plans to the concern authority as per the documents submitted to the SEIAA for prior Environmental Clearance
5. Project proponent shall not make any change in Layout Plan/ Master Plan submitted to the Authority without its prior permission and shall submit approved layout plan to Department before commencement of construction work.
6. In case of submission of false document and non compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environmental Clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.
7. The Environment department reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
8. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 5 years.
9. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the

adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.

10. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.


(Valsa R. Nair Singh)
Secretary, Environment
Department & MS, SEIAA

Copy to:

1. Shri. Ashok Basak, IAS (Retd.), Chairman, SEIAA, 502, Charleville, 'A' Road, Church gate, Mumbai- 400 020, Maharashtra.
2. Shri. P.M.A Hakeem, IAS (Retd.), Chairman, SEAC, 'Jugnu' Kottaram Road, Calicut- 673 006 Kerala.
3. Additional Secretary, MOEF, 'Paryavaran Bhawan' CGO Complex, Lodhi Road, New Delhi - 110510
4. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.
5. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
6. Regional Office, MPCB, Navi Mumbai
7. Collector, Navi Mumbai.
8. Commissioner NMMC, Navi Mumbai.
9. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.
10. Director (TC-1), Dy Secretary (TC-2), Scientist-1, Environment Department.
11. Select file (TC-3).