

**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY**

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No. 2638 / EN/ T-II-1/087/2014

Date : 01 / 12 /2017

To  
M/s. Bengal Shipyard Limited  
Apeejay House, 2<sup>nd</sup> Floor  
15, Park Street, Kolkata – 700 016

*Subject : Environmental Clearance for the development of proposed marine industrial cluster at Kulpi, District – South 24 Parganas, West Bengal by M/s. Bengal Shipyard Limited.*

Sir,

This has a reference to your application submitted on 22/10/2014 and subsequent communications for Environmental Clearance for the development of proposed marine industrial cluster at Kulpi, District – South 24 Parganas, West Bengal.

The proposal has been examined and processed in accordance with EIA Notification, 2006. It is noted that the proposed proposal is for development of proposed marine industrial cluster at Kulpi, District – South 24 Parganas, West Bengal. It is found that the proposed project is for construction and operation of shipbuilding, ship repair, marine engineering facilities, logistics and support services at Kulpi.

It is noted that the salient features of the project, for which Environmental clearance has been considered are as follows :

<b>Name of the Project</b>	Development of Marine Industrial Cluster: Kulpi, South 24 Parganas, West Bengal
<b>Project Location</b>	In Kulpi and Kakdwip Blocks of South 24 Parganas District. The project site falls in Survey of India Toposheet Nos. 79B/4 and 79C/1 and lies between latitude 22° 00'34.7" and 22° 01' 07.4"N and longitude 88°12' 13.7" and 88°13'25.9"E.
<b>Project Component</b>	Bengal Shipyard Ltd (a subsidiary of Apeejay Shipping Limited), has proposed to set up Marine Industrial Cluster at Kulpi, South 24 Parganas, West Bengal. The maritime cluster under consideration would broadly comprise of core and non-core maritime activities viz., shipbuilding/ship repair, captive cargo handling facility of 4.8 MTPA, logistics and supporting services, marine heavy engineering manufacturing/repair facility, classification societies and marine surveying services, maritime education & training centre and maritime R&D & technology centre.
<b>Cost of the Project</b>	The project is expected to entail investments of approximately 2000 Crore depending on the future growth of maritime sector and business opportunities.
<b>Land</b>	The proposed project site will cover an area of 554 acres land among which total 524.61 acre is in possession with BSL. Balanced 29.39 acre land would be purchased from private owners at a later stage.
<b>CRZ recommendation</b>	CRZ recommendation for the project obtained from West Bengal Coastal Zone Management Authority vide letter no. 1582/EN/T-II-4/002/2017 dated 26.07.2017 and 1094/EN/T-II-4/002/2017 dated 29/05/2017



<b>Water Requirement</b>	During construction phase, approximately 50 m <sup>3</sup> /day of water will be required which will be abstracted from ground water. During operation phase, approximately 450-500 m <sup>3</sup> /day of water will be required and 300 m <sup>3</sup> /day water will be sourced from Hooghly river . Treated wastewater generated from the onsite Effluent Treatment Plant will cater for the rest 150 m <sup>3</sup> /day of water requirement.
<b>Power Requirement</b>	1MW of power will be required for construction which is will be procured from West Bengal State Electricity Board (WBSEB). For operations the facility will be having a H.T. Transformer Centre with 10 MW capacity along with a standby captive power (1000 KVA) plant comprising of diesel generator sets to meet emergency power requirements.
<b>Manpower Requirement</b>	About 300 labourers are planned to be engaged in phases during construction phase through sub-contractors. During operational phase about 300 duty officers and about 1000 labourers would be engaged during normal operation of the shipyard. Influx of a maximum of 5000 persons is envisaged during peak operational period depending on the future growth and development of the maritime cluster.

State Level Environment Impact Assessment Authority (SEIAA), examined the proposal and also perused recommendations of the State Level Expert Appraisal Committee (SEAC). After due consideration of the project proposal, and after considering the recommendations of the State Level Expert Appraisal Committee (SEAC), the State Level Environment Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA notification no. S.O. 1533 (E) dt. 14<sup>th</sup> September, 2006 of Ministry of Environment & Forests, GOI, subject to strict compliance of terms and conditions as mentioned below.

#### A. SPECIFIC CONDITIONS:

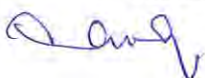
- i. The emissions from various process units should conform to the load / mass based standards prescribed by the Ministry of Environment & Forests and the State Pollution Control Board from time to time. The emission level should not go beyond the prescribed standards in any circumstances.
- ii. Regular monitoring of the ambient air quality shall be carried out and records shall be maintained. All care to be taken to maintain the ambient air quality standards as per GSR 826 (E) dated 16.11.2009. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM, SO<sub>2</sub> and NO<sub>2</sub>, VOC etc. are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to the SEIAA and the SPCB once in six months.
- iii. Adequate dust suppression and extraction system should be provided in material storage areas, material unloading and transfer points for controlling fugitive emission. Water sprinkling arrangement shall be made in the raw material stock yards and other high dust potential areas.
- iv. Water required shall meet from River Hooghly during operational phase and ground water during construction phase as proposed. Groundwater shall be abstracted as per permission of the competent authority. The provisions of The West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005 shall be strictly followed.
- v. Discharge of treated waste water to the River Hooghly is not permitted. Liquid wastes will not be allowed to drain directly into the River Hooghly under any circumstances.
- vi. Spent oil and batteries should be sold to authorized recyclers / reprocessors only. Hazardous waste generated to be disposed of as per provisions of Hazardous Wastes (Management and Transboundary Movement) Rules, 2016.
- vii. Adequate provisions should be made for harvesting rainwater. The harvested water should be used for plantation, firefighting, washing and cleaning etc. Recharging of Groundwater is not permitted.



- viii. Green belt shall be developed. **At least 33% of the area should be kept for green belt development.** All plantation activities should be undertaken in consultation with the local Divisional Forest Office. There should not be any removal/destruction of vegetative cover both at the establishment as well as the operational stage, without the permission of appropriate authority.
- ix. No tree can be felled without prior permission from the Tree Cutting Authority constituted as per the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006 and subsequent rules.
- x. The unit should strictly abide by The West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007.
- xi. The project proponent (PP) should abide by the Solid Waste Management Rules, 2016. The PP must develop the Solid Waste Management and Disposal Scheme ensuring storage and segregation of biodegradable and non-biodegradable wastes. The solid waste is to be disposed off in consultation with concerned local body.
- xii. Spent oil from DG Sets should be stored in HDPE drums in isolated covered facility and disposed off as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Spent oil from DG Sets should be disposed off through registered recyclers only.
- xiii. The proponent should abide by the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Collection and storage of hazardous wastes during Pre-construction and Post-construction activity including operational phase should be planned properly. The expected hazardous wastes should be disposed off separately as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- xiv. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- xv. Asphaltting/concreting of roads and water spray all around the stockyard and loading/unloading areas shall be carried out to control fugitive emissions. Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM<sub>10</sub> and PM<sub>2.5</sub> such as haul road, loading and unloading points, transfer points and other vulnerable areas. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- xvi. Proper lighting and proper pathway should be constructed to ensure safe vehicular movement. Provision of separate pathway for entry and exit of vehicles should be considered. Vehicles should conform to pollution under control (PUC) norms. Proper housekeeping shall be maintained.
- xvii. Health and safety of workers should be ensured. Workers should be provided with adequate personnel protective equipment and sanitation facilities. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xviii. Adequate measures to be adopted to ensure industrial safety. Proper fire detection & protection systems to be provided to control fire and explosion hazards.
- xix. The implementation and monitoring of Environmental Management Plan should be carried out, as proposed.
- xx. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical break-up shall be prepared and submitted. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxi. The vessels using the facility should have proper safeguard for protection of aquatic life such as dolphin etc. from damage by propeller.
- xxii. Oil Spill Disaster Contingency Plan along the entire route of operations approved by Indian Coast Guard should be submitted prior to commencement of cargo handling and despatch.
- xxiii. The construction should be consistent with the surrounding landscape & local architectural style and should not obstruct the flow of the river.



- xxiv. Water bodies/ponds within the project area to be preserved and in case of filling up, storage area having equal dimension should be prepared prior to filling as per West Bengal Land Reforms Act, 1955 (alongwith latest amendments) and West Bengal Inland Fisheries Act, 1984 (alongwith latest amendments).
- xxv. No dredging should be done during Hilsa breeding season.
- xxvi. Extraction of sand, leveling or digging of sandy stretches except for structural formation should not be done under any circumstance.
- xxvii. The structures created under this project should be able to withstand cyclonic storm that is likely to strike the coast once in 20 years interval. The project proponent should get the plan certified by a competent architect regarding its structural stability.
- xxviii. CRZ norms as laid down in CRZ Notification, 2011 should be strictly followed. Clearance from CRZ authority vide letter nos.1582/EN/T-II-4/002/2017 dt. 26/07/2017 and 1094/EN/T-II-4/002/2017 dated 29/05/2017 should be complied with.
- xxix. The ground water shall not be abstracted within the CRZ areas by the PP to meet with the water requirement in any case.
- xxx. Necessary preventive measures should be taken during painting, surface cleaning etc. to control fugitive emission.
- xxxi. The green diesel generators shall be used as back-up power supply shall be run only during power cuts and during construction stage. Green Diesel Generators run by LSHSD should be used.
- xxxii. 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. The earth work shall be undertaken with permission of the competent authorities.
- xxxiii. The ships should not discharge ballast water or any untreated sewage directly in to the river. All such wastewater load shall be sent to the effluent treatment plant and sewage treatment plant of the project.
- xxxiv. Workers shall be provided with standard, approved safety equipment and strictly enforce their usage at work site.
- xxxv. Waste water generated from domestic activities during construction phase shall be treated in septic tank and soak pit and during operational phase shall be treated in sewage treatment plant and reused for plantation, landscaping, flushing etc. The waste water generated from the industrial activities shall be treated in onsite effluent treatment plant and reused for industrial requirement as make up water.
- xxxvi. The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards.
- xxxvii. The funds earmarked for environment management plan shall be included in the budget.
- xxxviii. The PP shall abide by all the commitments made in the EIA-EMP report.
- xxxix. The commitments made during the Public Hearing and recorded in the Minutes shall be complied with.
- xl. Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification and for which CRZ recommendation has been obtained from WBSCZMA shall be carried out in Coastal Regulation Zone area.
- xli. The project proponent shall ensure that there shall be no damage to the existing mangroves and also ensure the free flow of water to avoid damage to the mangroves.
- xlii. 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.
- xliii. 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 report.



*Conditions for environmental clearance for the development of proposed marine industrial cluster at Kulpi, District – South 24 Parganas, West Bengal by M/s. Bengal Shipyard Limited.*

- xliv. Well designed drainage system shall be provided to dewater the dock while excavation. Necessary permission shall be obtained for dewatering the dock during construction.
- xlv. 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.
- xlvi. All measures shall be taken during the excavation activity as deemed necessary from the geotechnical investigation of the soil and ground water profile.
- xlvii. All such solid and hazardous wastes including onboard wastes (while ships dock at the site) will be handled as per the Hazardous and other Waste (Management & Transboundary Movement) Rules, 2016.
- xlviii. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
- xlix. The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
  - I. 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.
  - ii. All effluent generated in the dry dock shall be drained in to the proposed on site effluent treatment plant (ETP) equipped to treat the effluent into dischargeable standards. The oil-water separator of the ETP shall remove any unwanted oil & grease content from the effluent. The ETP shall be equipped to treat such effluent including the bilge water and other ship discharges to meet the general standards for discharge of effluent in marine coastal areas. Ballast water from ships shall be stored at the facility and will be used in refilling of same before release of ships back into water. Sewage shall be treated in the STP.
  - iii. The proposed project will not use TBT containing paints. The ships docking for repair may have existing TBT paint layer. So blasting operations (surface cleaning) shall be extremely controlled and contained within the work site ensuring all accumulated solid waste and effluent are given standard treatments. The effluent/dock flow shall be drained to the ETP while solid/hazardous wastes shall be contained temporarily in site and timely disposed off through the CTSDF.
  - liii. 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.
  - liv. Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/accidents.
  - lv. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.
  - lvi. Corporate Environment Responsibility:
    - a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
    - b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
    - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
    - d) To have proper checks and balances, the company shall have a well laid down system of

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reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

**B. GENERAL CONDITIONS:**

- i. The environmental clearance accorded shall be valid for a period of 7 years for the proposed project.
- ii. Prior Consent-to-Establish (NOC) for the proposed project must be obtained from WBPCB before commencement of construction. All other statutory clearances should be obtained by project proponent from the competent authorities.
- iii. Environmental Clearance is to be obtained separately for building and construction having built up area of  $\geq 20,000$  sq.m. or any other activity within the project site considered as a category A or B project as per the schedule of EIA Notification, 2006.
- iv. The project proponent shall comply with all the environmental protection measures and safeguards recommended in the EIA-EMP. Further, the unit must undertake socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply, sanitation program for local school and health care etc.
- v. All the conditions, liabilities and legal provisions contained in the EC shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity.
- vi. Provision should be made for the supply of kerosene or cooking gas to the labourers during construction phase. All the labourers to be engaged for construction works should be screened for health and adequately treated before issue of work permits. Environmental sanitation should be ensured for the workers.
- vii. The project proponent should make financial provision in the total budget of the project for implementation of the environmental safeguards. The project authorities will provide requisite funds both recurring and non-recurring to implement the conditions stipulated by the SEIAA, West Bengal along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.
- viii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives (if required) etc. shall be obtained by project proponents from the competent authorities
- ix. Six monthly monitoring reports should be submitted to the West Bengal Pollution Control Board, who would be monitoring the implementation of environmental safeguards and should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents should also be forwarded to the State Level Environment Impact Assessment Authority, West Bengal and Regional Office (Eastern Zone) of MoEF&CC, Bhubaneswar.
- x. No further expansion or modifications in the plant should be carried out without prior approval of the State Environmental Impact Assessment Authority, West Bengal. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, West Bengal.
- xi. The West Bengal Pollution Control Board, who would be monitoring the implementation of environmental safeguards, should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to the WBPCB regularly. A complete set of all the documents should also be forwarded to the State Level Environment Impact Assessment Authority, West Bengal.
- xii. The State Level Environment Impact Assessment Authority, West Bengal reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance 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.

- xiii. The Project Proponent should inform the public that the project has been accorded environmental clearance by the SEIAA, West Bengal and copies of the clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the SEIAA, West Bengal (<http://environmentwb.gov.in>). This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.
- xiv. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. The criteria pollutant levels namely; PM10, PM2.5, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xv. The Project Authorities should inform the State Pollution Control Board as well as the SEIAA, West Bengal, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work/project implementation.
- xvi. The above stipulations would be enforced along with those under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the Public Liability Insurance Act, 1991, the Environment Impact Assessment Notification 2006 and their amendments.
- xvii. The contact details of the proponent and the name of the consultant are given below –

Name of the Contact person with Designation	Mr. Subrata Kanjilal, GM (Project)
Address	Apeejay House, 2 <sup>nd</sup> Floor 15, Park Street, Kolkata – 700 016
Email	skanjilal@apeejaygroup.com
Telephone Number, Fax Number	Phone no. 033 44035451 Fax no. 033 44035458
Name of the Consultant	M/s. ERM India Private Limited



( Sandipan Mukherjee, IFS )  
Chief Environment Officer &  
Member Secretary, SEIAA

No. 2638 /EN/T-II-1/061/2016/1(4)

Date :01 / 12 /2017

Copy forwarded to :-

1. Secretary, SEAC & M.S. WBPCB
2. Officer-in-Charge, Regional Office (Eastern Zone), Ministry of Environment & Forests, Government of India, A-3, Chandrashekharpur, Bhubaneswar – 751 023, Orissa.
3. Chief Inspector of Factories, Factories Directorate, 1, K.S. Roy Road, Kolkata – 700 001.
4. Guard file / Record file.

Sd/-  
Chief Environment Officer &  
Member Secretary, SEIAA

