

File No: 10-77/2018-IA.III Government of India

Ministry of Environment, Forest and Climate Change IA Division



Date 29/12/2023



To,

Sanjay Prasad

ADANI CEMENTATION LIMITED

Adani House, 56 Srimali Society, Navrangpura Ahmedabad, Navrangpura, AHMADABAD,

GUJARAT, , 380009 sanjay.prasad@adani.com

Subject:

Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/MH/INFRA1/445308/2023 dated 08/12/2023 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below:

(i) EC Identification No. EC23A3501MH5535147N

(ii) File No. 10-77/2018-IA.III

(iii) Clearance Type Fresh EC

(iv) Category A

7(e) Ports, harbors, breakwaters, dredging,7(e)

(v) Project/Activity Included Schedule No. Ports, harbors, breakwaters, dredging,7(e) Ports,

harbors, breakwaters, dredging

(vi) Sector INFRA-1

Berthing Jetty, Conveyor Corridor with Backup

Storage Facilities and Approach Road to Cement

Grinding Unit & Fly ash/Slag Processing Unit of

Adani Cementation Limited

(viii) Name of Company/Organization ADANI CEMENTATION LIMITED

(ix) Location of Project (District, State) RAIGAD, MAHARASHTRA

(x) Issuing Authority MoEF&CC

(xi) Applicability of General Conditions as per

EIA Notification, 2006

(vii) Name of Project

No

- 1. The proposed project is for setting up of Berthing Jetty, Conveyor Corridor and Approach Road to cater traffic load of 5 Million MTPA capacity proposed along Amba River at village Shahbaj and Shahpur, TalukaAlibag, District Raigad, Maharashtra by M/s Adani Cementation Limited (ACL).
- 2. It is estimated that around 6 ha will be required to establish the proposed Berthing Jetty, Conveyor Corridor with Backup storage facilities and Approach Road. Around 2.20 Ha. has been allocated for the Berthing Jetty, 0.90 Ha will be used for Conveyor Corridor & Approach Road and 1.306 Ha shall be dedicated for Backup and storage facilities as per permissible activity in CRZ Ill (Rural) area.
- 3. The proposed jetty will develop in phased manner in Phase I:
- 4. One number of barge berth having total length of 160 m &width of 25 m having mechanized handling system of 1000 TPH for cement import and 400 TPH for fly ash/slag import.
- 5. Approx. 400m of approach trestle connecting landside facilities to Jetty (ii). Development of cement blending unit in non CRZ area.
- 6. Captive jetty, plant approach road and the right of way of conveyor between jetty and blending unit in CRZ area.
- 7. Approx. 500m of conveyor connecting from jetty to cement blending plant area
- 8. Dredging in berth pocket area
- 9. Unloading mechanism at jetty: self-discharging vessel/mechanized unloading
- 10. support back up infrastructure for operations and maintenance of the proposed facilities.

Phase II:

- 1. Three additional barge berths having total length of 460 m and 25 m wide.
- 2. 500 m of pneumatic discharge pipe/ conveyor connecting from jetty to cement blending plant area backup area development incremental supporting infrastructure.
- 3. The proposed Jetty will have four barge berths having total length of 620 m and 35 m wide with mechanized handling system. Approx. 535 m of pipe conveyor system connecting from jetty to cement grinding plant. Berths will have depth of 6 m in-front of the berths approx. 435 m of approach trestle connecting from onshore to jetty is also planned.
- 4. The proposed project falls under 7(e), Ports, Harbour, Breakwaters, Dredzing Category-A, Highway as per EIA notification 2006. Total investment/cost of the project is Rs.172 Crore.
- 5. Details of Terms of References: The Terms of Reference (ToR) was considered in 36th meeting held on dated 26th November 2018 and the EAC recommended for grant of ToR, Ministry granted the ToR vide letter no. File no: 10-77/2018-IA.III, dated 13th December, 2018 subsequently the amendment in ToR in was considered in 43rd EAC meeting held on 22nd August, 2019, the EAC recommended for grant of amendment in ToR and Ministry granted the TOR on 09th October, 2019. Subsequently Applied for amendment in ToR and it was considered in 278th EAC meeting held on 28th October, 2021 and the Amendment in ToR was issued on 06.12.2021.
- 6. Public hearing details: Public Hearing was conducted was conducted at Jay Mangal Karyalaya, Pandawa Devi, Post Poynad, Tal Alibag, Dist- Raigad Maharashtra., The details are as following below:

Date of public	II.ocation	District and State	Chaired by
_	At Jay Mangal Karyalaya, Pandawa Devi, at Post - Poynad, Tal- Alibag Maharshtra		Additional District Magistrate

1. Land use/Land cover of the project site is as following:

S. No.	LULC	Area (ha)	%	Remarks, if any
1	Waterfront area (CRZ IVB)	2.2000	37	Berthing Jetty
2	Mangrove Forest (CRZ IA)	0.6497	11	
3	Intertidal area (CRZ IB)	0.5503	09	Conveyor Corridor and Approach Road
4	Agriculture (CRZ -III)	2.6000	43	for Backup Facilities

	Total	6.0000	100	
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- 1. Terrain and Topographical features: Ambariver is estuarine in nature and influenced by tide. Existing elevation of proposed project area varies between 4.66 m to 4.86 m from CD. Existing bund of about 2.5 m at 100m distance from project boundary which has been marked as HTL with respect to proposed integrated project area by 'Institute of Remote Sensing' Chennai and will be strengthen. Highest flood level of Ambariver near the site is around (+) 4.4 m with respect to CD. Onshore facilities of the Terminal are planned in the land generally flat with average Ground Level above Chart Datum. The proposed project is located on Seismic Zone IV as per IS: 1893 (Part I): 2002.
- 2. Details of water bodies, impact on drainage: The proposed project is located Ambariver (0.4 km in East direction), Bhogeshwar river (7.5 km in NNE direction), Shreegaon dam (6.0 km in SSW direction) and Teenvira Dam (6.1 km in SW direction).
- 3. Water requirements: The water requirement will be limited to drinking purposes only i.e., around 500 LPD and it will be sourced from local approved vendors. MoU with Local vendors will be made to supply domestic water.
- 4. Diversion of Forest land: Around 0.6497 Ha. Mangrove Reserved Forest is falling under proposed Jetty project for which, ACL has applied in MOEF&CC for Forest Clearance vide Proposal no. FP/MH/Others/40665/2019 dated 14.06.2019. Stage I forest clearance for diversion of Mangrove Forest has been obtained vide letter no.: Desk-17/Nodal/Thane/I.D-12816/812/2021-22 dt. 20.08.2021 of Addl. PCCF and from Ministry vide letter No-FC-I/MH-243/2021-NGP dated 29.10.2021.
- 5. Waste Management: Generation of Municipal Solid Waste is not envisaged. It is a greenfield project. Domestic wastewater generated from the office toilets will be treated in modular STP. The treated wastewater will be used for green belt development.
- 6. Details of tree cutting and Green belt development: About 158 tree likely to be affected. Compensatory afforestation will be raised at the cost of user agency on 1.00ha degraded forest land of reserve forest in survey no.134A(Now S.No.135) of village NavedarBeli, taluka Alibag, District Raigad as far as possible, a mixture of local indigenous species shall be planted and monoculture of any species may be avoid.
- 7. Details of Rainwater Harvesting: Rainwater harvesting will be implemented and practiced at the jetty deck and at the surroundings of proposed backup facility. The rainwater harvesting will be carried out through roof top rainwater harvesting method on the jetty deck and rainwater harvesting from surface / grounds at the backup facility.
- 8. CRZ area: The demarcation of CRZ survey has been carried out by Institute of Remote Sensing, Anna University, Chennai. The details are as following:Berthing jetty-CRZ IVB, Approach road-CRZ IA (50 m mangrove buffer), Backup & storage facility-CRZ IA & CRZ III Conveyor corridor-CRZ IA, CRZ III & CRZ IVB. The proposed project has been recommended by Maharashtra Coastal Zone Management Authority vide Letter No.CRZ 2018/CR 136/TC4 dt. 10.12.2020.
- 9. Foreshore facilities: Berthing jetty with piled trestle will be developed along the banks of Amba River. Since the proposed jetty is with trestle arrangement, there is no obstruction to the natural course of water flow and no change along the creek bank is envisaged. The indicative level capital dredging estimates work out to 60,000 m3 for entire berthing area. The dredge material will be utilized for cement grinding unit area development. In case of any siltation in future in the proposed berthing area, a maintenance dredging volume of up to 30,000 m3 will be taken up. The dredged material arising out of maintenance dredging will be appropriately disposed at identified dredge spoil ground. Accidental oil spill has been studied through mathematical modelling studies and the oil spill contingency plan is added.
- 10. Marine disposal: No marine disposal (effluent outfalls) is envisaged in the proposed development.
- 11. Total Traffic project will be.

Commodity	Incoming	Traffic(MTPA)
Cement	Incoming	2
Clinker	Incoming	1
Fly ASh	Incoming	0.5
Slag	Outgoing	1
Coal/AFR	Outgoing(AFR), Incoming(Coal)	0.5
Total		5

- 1. Land acquisition and R&R issues involved: The proposed project does not involve any R&R issues.
- 2. Employment potential: It is expected that the manpower requirement will be about 40 as direct employment during construction. About 10 Direct and more than 400 indirect Employment will be generated during operational phase. Preference will be given to the locals based on their skills and experience.
- 3. Benefits of the project: Development of proposed project will have direct benefit for the local people immensely in terms of continuous economic benefits. Improvements in Physical Infrastructure, Social Infrastructure, Employment Potential and Other Tangible Benefits through CSR activities are the key benefits expected from the project. The project will also contribute as Improvement of physical and social infrastructure to development of basic local amenities. Expansion/development/improvements in road network. Exposure to modern technologies used in production Increase in local income.
- 4. Details of Court cases: There is no litigation pending against this project.
- 5. During the EAC meeting, the Committee observed the following:
- 6. The EAC, taking into account the submission made by the project proponent, had a detailed deliberation in its 345th meeting on 09th-10th November, 2023 and **recommended** the proposal for the grant of Environmental and CRZ Clearance subject to all specific and standard conditions applicable for such projects.
- 7. 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 to 'setting up of Berthing Jetty, Conveyor Corridor and Approach Road to cater traffic load of 5 Million MTPA capacity proposed along Amba River at village Shahbaj and Shahpur, Taluka Alibag, District Raigad, Maharashtra by M/s Adani Cementation Limited (ACL) Adani Cementation Limited (ACL)' under the EIA Notification, 2006 as amended and CRZ Notification 2011, subject to strict compliance of the following specific conditions, in addition to all standard conditions applicable for such projects.
- 8. This issues with the approval of the Competent Authority

Copy To

- 1. The Secretary, Department of Environment, Govt. of Maharashtra, New Administrative Bhavan, 15th Floor, Madame Kama Road, Mantralaya, Mumbai 400 032.
- 2. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur- 440001.
- 3. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi 32.
- 4. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Points, 3rd & 4th floor, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai 400 022.
- 5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6. PARIVESH Portal.
- 7. Guard File/Record File.

Annexure 1

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

1. Specific Conditions

S. No	EC Conditions
1.1	 Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.

S. No **EC Conditions** 1. All the recommendations and conditions specified by the Maharashtra State Coastal Zone Management Authority (MCZMA) vide letter No CRZ 2018/CR 136/TC 4 dt. 10.12.2020 shall be complied with. 2. Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974. 3. As proposed storage area of 1.306 Ha, shall be placed outside of the CRZ area, with the minimum distance of 200m inside the proposed Cement Grinding Plant and southern bank of Amba estuary at Shahpur and Shahbaj Village, Alibag Taluk, Raigad district, Maharashtra. No storage is permitted within the CRZ area and this CRZ area shall be made part of green belt. 4. As proposed by PP the storage area of 1.306 Ha shall be dedicatedly used for Backup and storage facilities of the Jetty only. No plant material and storage shall be mixed with it. 5. Materials are transported to and from the jetty with the help of conveyors connecting jetty and plant. The completely covered (Closed type gallery) shall be used for preventing the material from ingress caused by wind and rain. 6. PP shall ensue the loading and unloading process shall not cause any spillage in the water and strom water drains should be built to collect spillage, if any. 7. Storage of the Cement, Clinker, Slag, Coal, AFR and Fly ash., shall be under covered shed accommodated with a Stacker reclaimed inside provided with DFS (Atomized Automatic Sprinkling System) including peripheral drainage system, internal roads, fire fighting system etc. 8. Cement, Clinker, Slag, Coal, AFR and Fly ash., handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated. 9. The approach road shall be constructed strictly follow the Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area and road should be built on stilts. 10. As proposed by PP no fuel filling facility is permitted to the vessels at jetty. 11. The project proponent shall install system carryout 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. 12. 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 fugitive emission standards. 13. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report. 14. Garland drains and collection pits of adequate capacity shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off and disposed only after treatment. 15. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high level of particulate matter such as around loading and unloading point 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. 16. Risk assessment for spill scenarios and Disaster Management Plan as prepared shall be in place in the environment Management cell of VPT with all SOP's for various scenarios.

17. Spillage of fuel/engine oil and lubricants from the construction site are a source of organic

S. No	EC Conditions
	pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage. 18. Records of regular dredging shall be maintained with periodic survey data. 19. Sediment analysis of harbor at identified locations shall be analyzed and records for past and present period shall be maintained. 20. 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. 21. No underwater blasting is permitted. 22. Necessary approvals be taken during implementation and commissioning from statutory bodies concerned. 23. A site specific biodiversity conservation plan including mitigation measures to be developed from competent nationally/internationally recognized institute with appropriate financial allocation for its implementation. 24. 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. 25. A continuous monitoring programme covering all the seasons on various aspects of the coastal and marine environsneed to be undertaken by a competent organization available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. Monitoring should include sea weeds, sea grasses, mudflats, sand dunes, fisheries, mangroves and other marine biodiversity components as part of the management plan. 26. Sediment concentration should be monitored fortnightly at source and disposal location of dredging while dredging. 27. 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)

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,	

S. No	EC Conditions
	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 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 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

S. No	EC Conditions
	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 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

S. No	EC Conditions
	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/ 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.

S. No	EC Conditions	
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 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

S. No	EC Conditions
	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.
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.

