

**Government of India
Ministry of Environment, Forest & Climate Change
(I.A. Division)**

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Telefax: 011: 24695398
Dated: 2nd November, 2016

To,

**Shri Atul Sharma,
Dy. General Manager (Env),
M/s Gujarat Maritime Board,
Sagar Bhavan, Sector 10/A,
Opp. Air Force Station,
Sachivalaya, Gandhinagar- 382010**

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Subject: Upgradation of existing ship recycling yard at Alang Sosiya, Gujarat for undertaking safe and environmentally sound ship recycling operations by M/s Gujarat Maritime Board –Environmental and CRZ Clearance reg.

Ref.: Your online proposal no. IA/GJ/MIS/24799/2014 dated 8th July, 2016.

Sir,

This has reference to your online proposal no. IA/GJ/MIS/24799/2014 dated 8th July, 2016 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report regarding above mentioned project.

2.0 The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that the proposal is for upgradation of existing ship recycling yard at Alang Sosiya, Gujarat for undertaking safe and environmentally sound ship recycling operations by M/s Gujarat Maritime Board. The existing yard stretches over a length of 10 km of coastline. The yard is divided into 167 plots which have been leased to private entrepreneurs for ship recycling. The existing yard has the capacity to recycle 400 ships per year to recover 4 million tonnes per year (Mt/yr) of various materials which include over 99% steel. Details of the proposed upgradation and expansion project are as given below:

- a. **Upgradation of existing Ship recycling plots:** 70 plots in Phase I and remaining 97 plots in Phase II.
- b. **Hazardous Material removal Pre-treatment Facility:** Constructing two nos. of dry-docks (each of dimension: l x b x h = 300 m x 50 m x 11.5 m) for pre-cleaning of hazardous materials from ships. Dry-dock 1 will be at the southern end of the existing yard and Dry-dock-2 about 2 km further south. Both the dry-docks may also be used for ship repair and ship building purposes when there are no ships for decontamination.

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- c. **Additional facilities:** (1) Waste oil treatment system. (2) Incinerator at the existing dedicated waste Treatment Storage and Disposal Facility (TSDF) site located within Alang Notified Area.
- d. **Additional Plots:** 15 nos. 100 x 90 m plots between the two proposed dry-docks.

3.0 The total quantity of capital dredging from each dry-dock works to about 1.00 million cubic metres (Mm³). Quantity of maintenance dredging will be 0.10 Mm³ for each dry-dock.

4.0 Cost of project is Rs. 1630 Crore. Total water requirement for industrial purpose will be 2000 m³/day and potable purpose will be 2000 m³/day after expansion. At present, 1000 m³/day is being supplied through pipeline from Trapaj. The remaining water is supplied in tankers from bore-wells located well away from the coast. Ballast water will be treated for oil content and sediments before discharging. Quantity of bilge water generation will be 52 m³/day, which will be treated in the ETP (60 m³/day). Each plot will have RCC storage tank of 25 m³ capacity. Sewage will be treated in the STP. Power requirement for grid will be increased from 1.35 MW to 3.0 MW after expansion. Emergency power will be provided by DG set.

5.0 Adequate measures will be taken while handling asbestos. Asbestos & asbestos containing material (ACM) will be removed before actual ship cutting starts; Dismantling of large sub-assemblies containing asbestos/ACM will be carried out in special completely enclosed chambers equipped with special air filters. Pressure inside will be kept slightly below atmospheric pressure. Salvageable asbestos/ACM will be sold to only authorized recyclers only. All asbestos containing waste-packed in leak proof & labelled containers will be disposed in TSDF. Glass wool, Paint chips and waste containing poly chlorinated biphenyls (PCBs), waste Rubber will be sent to TSDF. Poly-urethane foam (PUF) & Polystyrene (Thermocol), Sludge Residue and Contaminated Material, Unusable plastics & non-metallic paints, Rexene will be incinerated in the incinerator. Incinerator should be designed as per CPCB guidelines. Energy shall be recovered from incinerator.

6.0 Public hearing was held on 20th October, 2015.

7.0 Gujarat Coastal Zone Management Authority vide letter no. ENV-10-2016-99-E (T Cell) dated 8th June, 2016 has recommended the proposed facilities to MoEF&CC under the provisions of the CRZ Notification, 2011. As per the CRZ maps prepared by the NCSCM, Chennai proposed facilities fall in the CRZ – (IB), CRZ (III) and CRZ (IV) category.

8.0 All the projects related to ship breaking yards including ship breaking units are listed at 7(a) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at Central level.

9.0 The proposal was considered by the Expert Appraisal Committee (Infrastructure-2) in its meetings held during 26th – 28th November, 2014, 23rd – 24th April, 2015, 28th-29th July, 2016 and 21st – 22nd September, 2016 respectively. Project Proponent and the EIA Consultant namely M/s MECON Limited, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be adequate and in full consonance with the presented TORs. The Committee recommended the proposal for environmental and CRZ clearance.

10.0 As per the recommendations of EAC, the Ministry of Environment, Forest & Climate Change hereby accords Environmental and CRZ Clearance for the above-mentioned project "Upgradation of existing ship recycling yard at Alang Sosiya, Gujarat by M/s Gujarat

Maritime Board", under the provisions of the Environment Impact Assessment Notification, 2006 & Coastal Regulation Zone (CRZ) Notification, 2011 and amendments thereto and Circulars issued thereon and subject to the compliance of the following specific conditions, in addition to the general conditions mentioned below:

A. SPECIFIC CONDITIONS:

- i) 'Consent to Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- ii) 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 shall be carried out in Coastal Regulation Zone area.
- iii) 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.
- iv) 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. A creek protection plan and a plan to manage the marine biodiversity shall be prepared, documented and implemented through the NIOS or any other specialist institution of repute in marine and brackish water biology
- v) GMB shall implement the plan for upgradation of the existing ship recycling units in such a way that will help to improve the overall marine water quality of the sea atleast for Class SW-IV water (for harbour water) parameters i.e. pH range 6.5-9.0; Dissolved Oxygen 3.0 mg/l or 40 percent saturation value, which ever is higher; Colour and Odour: no noticeable colour or offensive odour; Floating Matters Oil, grease and scum (including Petroleum products) 10 mg/l; Fecal Coliform 500/100 ml (PAN) Not exceeding 1000/100 ml in 20 percent of samples in the year and in 3 consecutive samples in monsoon months; Biochemical Oxygen Demand (3 days at 27°C) 5 mg/l.
- vi) All the recommendations and conditions specified by Gujarat Coastal Zone Management Authority vide letter no. ENV-10-2016-99-E (T Cell) dated 8th June, 2016 shall be complied with. All the provisions of the CRZ notification, 2011 as amended from time to time shall be strictly complied with.
- vii) All details on waste management and handling as given in letter no. GMB/ENV/91(C)/JICA/5404 dated 19-7-2016 as submitted before the committee should also be provided to the State Pollution Control Board along with the application for consent and authorisation to enable them to verify compliance on site before the Consents to Operate, authorisation or any other permission to operate is given. An action plan shall be formulated, documented and implemented for the existing and proposed dock to ensure zero waste spill.
- viii) While breaking the ship, boom (circular pneumatic type) should be placed around the ship to control the spillage.
- ix) Collection vehicles used for the collection and transportation of solid/liquid waste should be adequately designed to handle specific type of wastes and shall have protection against the leaking or spilling of solid waste or being blown or hurled from such vehicles.

- x) Safety and health requirements relating to occupational exposure to Asbestos, while ship breaking shall be in compliance with IS11456-1986 and subsequent amendments. Facility must ensure that workers are not exposed to air-borne asbestos concentrations in excess of prescribed Permissible Exposure Limits (PELs).
- xi) There should be a safe working and operating procedures ensuring safe accessibility to all the areas and compartments of the ship and safe conditions for hot work.
- xii) Hazardous waste inventory that identifies, quantifies and locates the type of waste on board should be carried out before the ship comes to the shore. Chemical safety data sheets should be made available for each hazardous substance that is identified. As per the High Power Committee, maintaining the complete inventory of hazardous wastes on board is a mandatory task for any ship owner. This inventory shall be submitted by the State Maritime Board to the SPCB to ensure safe disposal of hazardous waste. Further permissions for ship anchoring and beaching will be based on hazardous waste inventory. Removing and cleaning of liquids, fuels and oils: Before start of ship dismantling, all the liquid residues should be removed and cleaned from the ship. This process may continue during the entire ship dismantling process.
- xiii) The hazardous wastes identified by the inventory data be properly removed and disposed. Dismantling plan should be drawn before start of the work. This plan forms the basis for sectional breaking of the ship; proper storage; breaking and disposal of waste. Waste obtained during dismantling should be sorted and segregated based on the type of waste and disposal option. Specific wastes from the ship breaking yard are as follows: Asbestos / Polychlorinated biphenyls (PCBs) / Bilge and ballast waters / Oils and fuels / Metal cutting / Paints Removal and Disposal of Miscellaneous Ship Machinery
- xiv) The Project Proponent should perform air surveillance activities in work areas where asbestos is being removed, including meeting the general monitoring criteria, conducting initial exposure assessments, and performing daily and periodic monitoring. The facility must keep an accurate record of all measurements taken to monitor the workers' exposure to asbestos. Facility is required to conduct medical surveillance for all workers who, for a combined total of 30 or more days per year, are performing asbestos removal work or are exposed at or above the permissible exposure limit. This includes medical examination and consultation prior to beginning work, at least annually, and upon termination of employment. The facility must establish and maintain an accurate record for each worker subject to medical surveillance. These records must be maintained for the duration of the worker's employment, plus an additional 30 years.
- xv) The Project Proponent should provide, at no cost, a training program for employees likely to be exposed to asbestos removal work during the ship breaking.
- xvi) A comprehensive Medical contingency plan shall be evolved, documented and implemented for occupational health and safety. Proper periodical medical check-ups and insurance plans shall be undertaken for workers during and after their employment on the premises. The project will build in a continued program of

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sensitising all stake holders to the hazards of asbestos exposure and its management.

- xvii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- xviii) Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator. Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, SO₂, NO_x and CO from the incinerator stack. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out. Efficiency of scrubber shall be monitored regularly and maintained properly.
- xix) The removal of paints and coatings, regardless of the process used, generates wastes that must be managed and disposed. The Project Proponent should implement procedures to ensure that all wastes are contained and stored in a manner that will prevent their release into the environment.
- xx) Refrigerants (CFC-12, HCFC-22, HFC), which are ozone depleting or with high Global Warming Potential from the ship shall be recovered without leaking into atmosphere and stored safely. Recovered refrigerant shall be sent to authorized recycler/reclaimer. If recycling /reclaiming are not possible, then recovered refrigerant shall be sent to authorized destruction facilities.
- xxi) Municipal solid waste shall be disposed off as per Solid Waste Management Rules, 2016. Construction activity related wastes (C & D waste) shall be disposed off as per Construction and Demolition Waste Management Rules, 2016. Plastic waste shall be disposed off as per Plastic Waste Management Rules 2016. E-waste shall be disposed off as per e-waste (Management) Rules, 2016. Lead acid batteries shall be disposed off as per Batteries (Management and Handling) Rules, 2001 and its amendment from time to time.
- xxii) All hazardous wastes including onboard wastes (while ships dock at the site) shall be handled as per the Hazardous and other Waste (Management & Transboundary Movement) Rules, 2016.
- xxiii) To ensure better safety and security of plots, open spaces (buffers) can be created for giving emergency access/ parking to/for fire tenders, installing water lines for emergency services, access to beach, anchoring rescue boats and dinghies.
- xxiv) Truck parking facility should be provided for easy accessibility of vehicles for transporting scrap and other materials and to relieve the traffic congestion around the yards. The parking facility should have basic infrastructure like potable water, sanitation, resting, shops, eating joints, vehicle repair shops, fuelling stations, etc., for the drivers. It should also have accommodation for transporter companies/agents. To accommodate more number of vehicles the trucks can be parked angularly.
- xxv) Facility must ensure that workers are protected from exposure to airborne PCB concentrations. As per OSHA (Occupational Safety and Health Administration) regulations, governing exposure to PCBs in the workplace include two time-weighted averages for chlorodiphenyl.

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- xxvi) All encroachments shall be removed and suitably rehabilitated as proposed. The project proponents would provide for waste management from eateries, dhabas and other sources within the area of jurisdiction/ influence of the project.
- xxvii) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- xxviii) Automatic /online monitoring system (24 x 7 monitoring devices) for air pollution as well as water pollution in respect of flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB and in the GMB's website.
- xxix) A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. The current upgradation project should be supervised and monitored by the proposed cell.
- xxx) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.
- xxxi) The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also during their presentation to the EAC.
- xxxii) The Project Proponent 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.
- xxxiii) Corporate Social 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 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) Appropriate measures must be taken while undertaking dredging/digging activities to avoid any likely degradation of water quality.
- (ii) Full support shall be extended to the officers of this Ministry/ Regional Office at Bhopal 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.

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- (iii) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.
- (iv) Ministry of Environment, Forest and Climate Change or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (v) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied to 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, Forest and Climate Change.
- (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 environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.

11.0 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.

12.0 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.

13.0 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 and CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <http://www.envfor.nic.in>. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhopal.

14.0 This 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.

15.0 Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

16.0 Any appeal against this Clearance 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.

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17.0 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.

18.0 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 MoEFCC, the respective Zonal Office of CPCB and the SPCB.

19.0 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 MoEFCC by e-mail.


(A N Singh)
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Copy to :-

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010, Gujarat.
2. The Additional Principal Chief Conservator of Forests (Western Zone), Ministry of Environment, Forest and Climate Change, Regional Office, E-5, Arera Colony, Link Road - 3, Bhopal -462 016, M.P.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043, Gujarat.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor bagh Road, New Delhi.
6. Guard File/Monitoring File/Record File.


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