F.No.10-39/2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Kochi Metro Rail Ltd.
(Water Transport Dept.)
No. CWD-345-19
Date. 10/10/19
Sign.

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

Date: 1st October, 2019

To,

M/s Kochi Metro Rail Limited
(A Joint venture Company of Govt. of India & Govt. of Kerala)
8th Floor, Revenue Tower, Park Avenue,
Kochi - 682011, Kerala
E-mail: watermetro@kmrl.co.in

No. 7200
Date. 9.10.19
Sign.

Subject: Kochi Water Metro Project at Kochi Kerala by M/s Kochi Metro Rail Limited - Environmental & CRZ Clearance - reg.

Sir,

This has reference to your online Proposal No. IA/KL/MIS/63548/2017 dated 5th March, 2019, submitted to this Ministry for grant of Environmental and CRZ Clearance in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 and Coastal Regulation Zone (CRZ) Notification, 2011, under the Environment (Protection), Act, 1986.

2. The proposal for 'Kochi Water Metro Project at Kochi Kerala by M/s Kochi Metro Rail Limited was considered by the Expert Appraisal Committee (Infra-2) in the Ministry in its 41st meeting held during 27-29 May, 2019 and 42nd meeting held during 10-12 July, 2019. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above said EAC meeting, are reported to be as under:-

(i) The proposal is for Kochi Water Metro Project, Cheranalloor G.P, Kadamakudy G.P., Mulavukad G.P, Varapuzha G.P., Elamkunnapuzha G.P., Kumbhalam G.P., Thrikkakara Municipality, Thripunithura Municipality, Maradu Municipality, Eloor Municipality, Kochi Corporation, Njarackal Panchayath of Kanayannur, Kochi and Paravoor Taluks in Ernakulam District, Kerala.

(ii) The proposed project recommends fifteen (15) identified routes connecting thirty eight (38) terminals across ten (10) island communities across 78.2 km channel length and 2 boatyards. KMRL is proposing to take up development of 7 additional terminals (Info Park (3 nos), Vaduthala, Njarackal, Mulavukad View Point and Embarkation jetty) as a social initiative. The total land to be acquired for the project is 9.51 ha for all the terminals.

(iii) Terms of Reference (ToR) was granted by MoEFCC vide letter F.No.10-39/2017-IA-III dated 18.08.2017 and subsequent amendment was granted vide letter dated 07.03.2019.

(iv) Public hearing was conducted on 23.07.2018 at Collectorate Conference Hall, Kakkanad, Ernakulam.

(v) The project is recommended by State Coastal Zone Management Authority (KCZMA) vide Letter No. 3560/A1/2018/KCZMA dated 25.02.2019.

(vi) The total water required for passengers and staff expected as 142.5 KLD. The source of water is Kerala Water Authority.

(vii) Total sewage generation is 113.98 KLD for 45 terminals. Sewage generated at each terminal location will be treated in septic tanks. Boats do not have any toilets nor use fresh water for any purpose, other than engine cooling water. There is no chance of bilge water mixing with oil, which would find a way into the waterway. When the boat is at the yard dry berth for repairs, the crew would use the toilets & wash rooms at the yard.

(viii) Bins shall be provided at appropriate locations in the terminals to collect the solid waste. Separate bins shall be kept for biodegradable and non-biodegradable. The same shall be disposed through Municipal waste management system.

(ix) Power requirement will be 56,314 kWh/day and sourced from Kerala State Electricity Board. It proposed to meet the power requirements of the Water Metro Project by setting up solar power panels over roof tops of the terminal buildings, covered roofs over the pontoons and by setting up a land based power plant. In addition, the GoK has requested KMRL to identify land to set up a solar plant.

(x) The entire storm water from the terminals would be disposed through suitable storm water drainage system with rain water harvesting recharge pits and the surplus water is discharged to the existing storm water drain running outside the Terminals premises.

(xi) Dredging is involved and the project falls in 10 km radius of sanctuary. Presence of Mangalavaram Bird Sanctuary around 500 m from the proposed High Court Jetty.

(xii) Investment/Cost of the project is Rs. 819 Crore.

(xiii) Benefits of the project: Better connectivity of islands around Kochi with main land is a long-standing requirement. Easy access to scenic islands around mainland will lead to socio-economic development of islands connected by KWMP. Project implementation will enhance overall employment opportunities. Continuous need based training programmes proposed will increase the skill and capacity of the involved stakeholders. Substantial reduction of the vehicular traffic and pollution. Safer passenger movement.

(xiv) Employment potential: 1120 including temporary and permanent employment for construction and operation phase.

3. The project/activity is covered under category 'A' of item 7 (e) i.e. 'Ports, harbours, break waters, dredging' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.

4. The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Kerala State Pollution Control Board on 23.07.2018. The issues were raised regarding retaining the biodiversity, integration of the Ro-Ro service with the proposed Water Metro Project, travelling

S. Bose

expenses etc. The Committee noted that issues have been satisfactorily responded by the project proponent. The project proponent informed the EAC that total 98 trees will be cut/transplanted with prior permission from the concerned Department.

The project proponent informed that in view of the observation of EAC made during 41st meeting held during 25-27 May, 2019, the project proponent approached to State Coastal Zone Management Authority, Kerala (KCZMA) for getting recommendation of KCZMA on the revised proposal. The KCZMA in its letter no. 3560/A1/2018/KCZMA dated 15.06.2019 inter-alia mentioned that as per the decision no. 103.03.07 of the 103rd meeting of KCZMA held on 07.06.2019, the General Manager (Water Transport), Kochi Metro Rail Limited has complied all the above conditions and has also submitted the revised CRZ reports and map to KCZMA. The compliance report and relevant documents submitted by Kochi Metro Rail Ltd was discussed in detail in the 103rd meeting held on 07.06.2019 and it was decided to approve the compliance report.

5. The EAC in its 42nd meeting held on 10-12 July, 2019, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental and CRZ clearance with stipulated specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 4th January, 2019 for the said project/activity, while considering for accord of environmental and CRZ clearance. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental and CRZ Clearance to the project 'Kochi Water Metro Project at Kochi Kerala by M/s Kochi Metro Rail Limited, under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:-

A. Specific Conditions:

(i) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.

(ii) The project proponent shall obtain NBWL clearance before commencement of project.

(iii) All the recommendations and conditions specified by the Kerala State Coastal Zone Management Authority (KCZMA) who has recommended the project vide letter No. Letter No. 3560/A1/2018/KCZMA dated 25.02.2019 and 15.06.2019 shall be complied with.

(iv) 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.

(v) 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.

(vi) Dredging shall not be carried out during the fish breeding season.

S. Bose

(vii) Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment including turbidity and turbidly should be monitored during the dredging.

(viii) No underwater blasting is permitted.

(ix) Dredged material shall be disposed safely in the designated areas and also to be utilized for beach nourishment. With the enhanced quantities, the impact of dumping on the coastal environment should be studied and necessary measures shall be taken on priority basis if any adverse impact is observed.

(x) 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.

(xi) While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.

(xii) The fresh water requirement of 142.47 KLD for all the 45 jetties and supplied by Kerala Water Authority/rain water storage.

(xiii) Waste waster generation for all the jetties will be 113.98 KLD for which septic tanks at all the terminals shall be provided.

(xiv) The concerns expressed during the public hearing needs to be addressed during the project implementation. These would also cover socio-economic and ecological and environmental concerns, besides commitment by the management towards employment opportunities.

(xv) Marine ecological studies and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, seaweed, Humpback dolphins, mangroves, Shrimp shellfish, fish, etc prepared by Centre of Advanced Study in Marine Biology Faculty of Marine Sciences Annamalai University, Tamil Nadu as given in the EIA-EMP Report shall be complied with in letter and spirit.

(xvi) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit.

(xvii) A periodic monitoring programme covering all the seasons on various aspects of the coastal environs need to be undertaken by NABL accredited laboratories during construction and operation phase of the project. The monitoring should cover various physico-chemical parameters coupled with biological indices such as microbes, plankton, benthos and fishes. Deviations in the parameters shall be addressed with suitable measures to conserve the marine environment and its resources.

(xviii) Continuous online monitoring of air and water quality covering the project area shall be carried out and the compliance report shall be submitted to the regional office of MoEF&CC.

(xix) Effective and efficient pollution control measures like covered conveyors/stacks (coal, iron ore and other bulk cargo) with fogging/back filters and water sprinkling commencing from ship unloading to stacking to evacuation shall be undertaken. Coal and iron ore stack yards shall be

J. Rose

bounded by thick two tier green belt with proper drains and wind barriers wherever necessary.

(xx) Sediment concentration should be monitored fortnightly at source and disposal location of dredging while dredging.

(xxi) 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 as part of the management plan. Marine ecology shall be monitored regularly also in terms of all micro, macro and mega floral and faunal components of marine biodiversity.

(xxii) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.

(xxiii) 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) Act, 1986. The provisions of Solid Waste Management Rules, 2016. E- Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.

(xxiv) Compliance to Energy Conservation Building (ECBC-2017) shall be ensured for all the building complexes. Solar/wind or other renewable energy shall be installed to meet energy demand of 1% equivalent.

(xxv) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.

(xxvi) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.

(xxvii) Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.

(xxviii) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report.

(xxix) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.

(xxx) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May 2018, project proponent has proposed an amount of Rs. 54 Crores under Corporate Environment Responsibility (CER) Plan for the activities such as development of access road, development of electric feeders & bicycle, solar farm and rain water collection system etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

S. Bose

B. Standard Conditions:

I. Statutory compliance:

i. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (incase of the presence of schedule-I species in the study area).

ii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.

iii. All excavation related dewatering shall be as duly authorized by the CGWA. A NOC from the CGWA shall be obtained for all dewatering and ground water abstraction

iv. 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.

v. 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.

II. Air quality monitoring and preservation:

i. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the project area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

ii. 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.

iii. 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.

iv. 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.

v. The Vessels shall comply the emission norms prescribed from time to time.

J. Bose

vi. 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.

vii. 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.

III. Water quality monitoring and preservation:

i. 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.

ii. 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.

iii. 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.

iv. Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.

v. The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.

vi. 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.

vii. 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.

viii. 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.

ix. 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.

J. Bose

x. No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.

xi. 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.

IV. Noise monitoring and prevention:

i. 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.

ii. Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.

iii. 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.

iv. 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.

V. Energy Conservation measures:

i. 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;

ii. Provide LED lights in their offices and residential areas.

VI. Waste management:

i. Dredged material shall be disposed safely in the designated areas.

ii. 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.

iii. 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.

iv. The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.

v. 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.

vi. 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.

vii. 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.

S. Bose

viii. 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 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

VII. Green Belt:

i. Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

ii. Top soil shall be separately stored and used in the development of green belt.

VIII. Marine Ecology:

i. Dredging shall not be carried out during the fish breeding and spawning seasons.

ii. Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.

iii. The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.

iv. 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.

v. 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.

vi. 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.

vii. The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

IX. Public hearing and Human health issues:

i. 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.

ii. Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/

S. Bose

required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.

iii. 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.

iv. 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.

v. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

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. The housing may be in the form of temporary structures to be removed after the completion of the project.

vii. Occupational health surveillance of the workers shall be done on a regular basis.

X. Corporate Environment Responsibility:

i. 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.

ii. 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.

iii. 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.

iv. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

XI. Miscellaneous:

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at

S. Bose

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.

ii. 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.

iii. 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.

iv. 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.

v. 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.

vi. The criteria pollutant levels namely; $PM_{2.5}$, PM_{10}, SO_2, 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.

vii. The project proponent 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, commencing the land development work and start of production operation by the project.

viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ix. 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.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xi. 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.

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

S. Bose

xiv. 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.

xv. 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.

xvi. 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.

6. This issues with the approval of the Competent Authority.

S. Bose

(Dr. Subrata Bose)
Scientist F

Copy to:

1) The Secretary, Department of Environment, Government of Kerala, Thiruvanantpuram, Kerala.
2) Chief Conservator of Forests and Member Secretary, Kerala CZMA, Science & Technology (A) Department, Sasthra Bhavan, Pattom, Thiruvananthapuram-4, Kerala.
3) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4) The Member Secretary, Kerala State Pollution Control Board, Pattom P.O., Thiruvananthapuram - 695 004, Kerala.
5) The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment, Forests and Climate Change, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bengaluru - 560034, Karnataka.
6) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
7) Guard File/ Record File/ Notice Board.
8) MoEFCC website.

S. Bose.

(Dr. Subrata Bose)
Scientist F