Validity expires on 02.10.2024

सत्यमेव जयते

PROCEEDINGS OF THE ADMINISTRATOR, STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, THIRUVANANTHAPURAM

(Present. SABITHA.S)

Sub: **SEIAA- Environmental Clearance for the Proposed construction of super speciality and surgical block in Govt.Medical College Kottayam Project at Survey No.s 480/1 and others, at Arpookara village ,Arpookara Panchayat, Kottayam Taluk, Kottayam District ,Kerala by the Principal, Govt. Medical College, Kottayam, Gandhi Nagar P.O., Kottayam 686008 – Granted - Orders issued**

State Environment Impact Assessment Authority, Kerala

No.1349/EC2/2019/SEIAA dated, Thiruvananthapuram 03.10.2019

Ref: 1. Application received on 06.05.2019 from Dr.Jose Joseph, Principal, Govt Medical College,Gandhinagar P.O,Kottayam .

2. Minutes of the 97th meeting of SEAC held on 21st and 22nd May 2019
3. Minutes of the 98th meeting of SEAC held on 03rd June 2019
4. Minutes of the 100th meeting of SEAC held on 11th and 12th July 2019.
5. Minutes of the 96th meeting of SEIAA held on 20th August 2019.

ENVIRONMENTAL CLEARANCE NO.45/2019

The Principal, Govt. Medical College, Kottayam, Gandhi Nagar P.O., Kottayam – 686008, vide his application received dated 06.05.2019, has sought Environmental Clearance under EIA Notification, 2006 for the proposed construction of new buildings viz. Super Speciality Block and Surgical Block in Govt. Medical College, Kottayam in Sy No. 480/1 & others at Arpookkara and Athirampuzha villages, Kottayam Taluk, Kottayam District, Kerala. It is interalia, noted that the project comes under the Category B, 8(a) of Schedule of EIA Notification 2006.

2. The proposed project site falls within Latitude 11°74'66.54"N to Longitude 75°52'58.96"E . The total plot area of the proposed project is 107.241 ha. The proposed built-up area of the project is about 68,155 sq.m (New Surgical block and Super specialty block).

3. The proposed project is for construction of super specialty block building and surgical block building within the existing Govt. Medical College, Kottayam. The existing campus is with plot area of 107.241 ha. There is no increase in plot area. There are several buildings like medical college, teaching hospital, administrative block, residential buildings within the campus. The total number of beds of the existing campus is about 2,000 beds. After the commissioning of the new buildings, the number of beds would be about 3,000 (about 2,000 beds existing + 1,098 beds proposed).

4. The daily water consumption during construction phase to meet domestic water requirement for construction workers and technical staff (200 workers / staff daily average) is 27 KL. The daily water consumption during construction phase for construction activities would be about 70 KL. The primary source of water will be from Open pond and from public supply of Kerala Water Authority during construction phase. The total daily water consumption during operation phase for the proposed project would be 685 KLD (fresh 328 KLD + recycled 357 KLD). The first day fresh water requirement is 685 KLD and subsequent days, the daily fresh water requirement is 328 KL. The sources of water during operation phase for construction of new super specialty block and surgical block are: -

1. Kerala Water Authority (Non-Flushing Req.)
2. Stored Rain Water (Non-Flushing Req.),
3. Ground water (pond) (Non-Flushing Req.)
4. Treated waste water from STP (Flushing, horticulture, HVAC Req.) (Entire Year).

5. The total power requirement is 3,054 kWh(1,540 kWh for Surgical Block + 1,514 kWh for Super Specialty Block) which is sourced from Kerala State Electricity Board. The total project cost is Rs. 564 Crores.

6. The proposal was placed in the 97th meeting of SEAC held on 21st and 22nd May, 2019. The Committee decided to invite the proponent for presentation.

7. The proposal was then placed in the 98th meeting of SEAC held 03rd June,2019. The proponent was heard by the Committee and entrusted Shri.M. Dileep Kumar & Shri.K.Krishna Panicker for field inspection.

8. The proposal was then placed incorporating the field visit report in the 100th SEAC meeting held on 11-12th July, 2019. The Committee decided to recommend for issuance of EC subject to the general condition in addition to the specific conditions

1. *Action should be taken for safe storage and utilisation of excavated soil of 27888cum within the campus. During construction phase, suitable stocking facility for the excavated soil should be provided with suitable side protection measures for avoiding erosion during rains.*
2. *Action for treatment of solid waste especially biodegradable waste in the proposed onsite Aerobic Compost Unit and remaining quantity of easily biodegradable waste should be treated in the existing biogas plant.*
3. *Action for maintaining the existing Biogas Plant properly by rectifying defects in the existing Solar Water Heating System.*
4. *Action for Management/handling of expired medicine, broken Mercury Thermometers, used needles and syringes (proposed to be handover to the authorised waste collectors/recycles as proposed in the project should not be done as per the BMW Rules 2016 as it is coming under infectious category of biomedical waste) should be handed over to the IMAGE after proper segregated storage of such waste in colour coded containers as specified in the Bio Medical Waste Management Rules 2016.*
5. *Action for providing proper leg operated colour coded Containers for segregated source storage of Biomedical Waste (Yellow, Red, White and Blue) as per the BMW Rules 2016 and Green coloured Container with lid for storage of General Solid Waste at all places for ensuring segregated Storage of waste at source as per the Rules.*
6. *Action for labelling the Wheel Barrows available in the Hospital and providing colour coded containers within wheel barrows for safe and segregated local transport of Biomedical Waste as per the BMW Rules, 2016.*
7. *Action for providing Source Segregated Storage Facility for Biomedical Waste (with proper concreted floor, tiles on the floor and walls and door with locking*

facility) as part the project, for the existing as well as the proposed buildings, as per the BMW Rules, 2016.

8. *Action for developing a green belt of local species of trees and plants as part of afforestation required to be done in the project at boundary of the compound all around for minimising pollution to the nearby habitation area.*
9. *Action for providing Storm Water Drainage to prevent flooding/water logging during monsoon.*
10. *Action for providing Rain Water Harvesting Facilities through pond in the lower level, where open land is available, for meeting water requirement / recharging of local ground water.*
11. *Action for avoiding discharge of excess treated effluent drained directly to natural drains to the outside of the compound by providing sufficient number of Soak Pits for disposing excess treated water.*
12. *The surroundings of STP and bio bas plant should be kept neat and clean and approach roads maintained properly.*
13. *Free vehicle movement must be ensured during construction phase as traffic through some of the roads will be affected during construction phase.*

9. The proposal was placed in the 96th Meeting of SEIAA held on 20th August 2019. Authority decided to issue EC for 5 years subject to the following specific conditions in addition to the general conditions.

1. *Action for safe storage and utilisation of excavated soil of 27888 cum within the campus. During construction phase, suitable stocking facility for the excavated soil should be provided with suitable side protection measures for avoiding erosion during rains.*
2. *Action for treatment of solid waste especially biodegradable waste in the proposed onsite Aerobic Compost Unit and remaining quantity of easily biodegradable waste should be treated in the existing biogas plant.*
3. *Action for maintaining the existing Biogas Plant properly by rectifying defects in the existing Solar Water Heating System.*
4. *The proponent shall make all the arrangement for the proper segregation and disposal of biomedical waste by installing suitable on site biomedical waste treatment plants.*

5. *Action for providing proper leg operated colour coded Containers for segregated source storage of Biomedical Waste (Yellow, Red, White and Blue) as per the BMW Rules 2016 and Green coloured Container with lid for storage of General Solid Waste at all places for ensuring segregated Storage of waste at source as per the Rules.*
6. *Action for labelling the Wheel Barrows available in the Hospital and providing colour coded containers within wheel barrows for safe and segregated local transport of Biomedical Waste as per the BMW Rules 2016.*
7. *Action for providing Source Segregated Storage Facility for Biomedical Waste (with proper concreted floor, tiles on the floor and walls and doorwithlocking facility) as part the project, for the existing as well as the proposed buildings, as per the BMW Rules 2016.*
8. *Action for developing a green belt of local tree species as part of afforestation to be done in the vacant project area to enrich the aesthethic beauty and for minimising environmental pollution.*
9. *Action for providing Storm Water Drainage to prevent flooding/water logging during monsoon.*
10. *Action for providing Rain Water Harvesting Facilities through pond in the lower level, where open land is available for meeting water requirement / recharging of local ground water.*
11. *Action for avoiding discharge of excess treated effluent drained directly to natural drains to the outside of the compound by providing sufficient number of Soak Pits for disposing excess treated water.*
12. *The surroundings of STP and biogas plant should be kept neat and clean and approach roads maintained properly.*
13. *Free vehicle movement must be ensured during construction phase as traffic through some of the roads will be affected during construction phase.*
14. *Activities relating to Corporate Environmental Responsibilities (2% of total project cost) shall be carried out leading to protection and promotion of environment in the project region as per OM F.No.22-65/2017-IA-III dt.01.05.2018 of MoEF & CC in consultation with the District Collector.*
15. *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 (Circular No.J-11013/41/2006-IA.II(I) of GoI, MoEF dt.22.09.2008).

10. In this circumstance, this Authority is pleased to issue Environmental Clearance as per EIA Notification 2006 for the proposed project construction of Super Speciality and Surgical Block in Govt.Medical College, Kottayam at Survey Nos. 480/1 and others, Village Arpookara, Panchayat Arpookara, Taluk Kottayam, District Kottayam, Kerala by the Principal, Govt. Medical College, Kottayam, Gandhi Nagar P.O., Kottayam - 686008 for five years subject to the condition in para 9 of this order and the usual general conditions for projects other than mining appended hereto. Also the following green conditions should be strictly adhered to.

Green Conditions.

1. *Adequate rain water harvesting facilities shall be arranged for.*
2. *Technology and capacity of the STP to be indicated with discharge point (if any) of the treated effluent.*
3. *Effluent water not conforming to specifications shall not be let out to water bodies.*
4. *Maximum reuse of grey water for toilet flushing and gardening and construction work shall be ensured.*
5. *Dual plumbing for flushing shall be done.*
6. *Provisions for disposal of e-wastes, solid wastes, non-biodegradables and separate parking facility for the buildings shall be provided.*
7. *Generation of solar energy to be mandatory for own use and/or to be provided to the grid.*
8. *There shall be no compromise on safety conditions and facilities to be provided by the project proponent*, which shall be ensured for occupation, regularisation or consent to operate.

11. The Clearance will also be subject to full and effective implementation of all the undertakings given in the application form, all the environmental impact mitigation and management measures undertaken by the project proponent in the documents submitted to SEIAA, and the mitigation measures and waste management proposal as assured in the Form - 1 and Form-1A, Environment Management Plan as submitted. The assurances and clarifications given by the proponent in the application and related documents will be deemed

to be part of these proceedings as conditions as undertaken by the proponent, as if incorporated herein.

12. Validity of the Environmental Clearance will be for five years from the date of issuance of E.C, subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of E.C in case of violation or non-compliance of any of the conditions stipulated herein or genuine complaints from residents within the scrutiny area of the project.

13. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its agencies and also by the Regional Office of the Ministry of Environment and Forests, Govt. of India, Bangalore.

i. Necessary assistance for entry and inspection by the concerned officials and staff should be provided by the project proponents.

ii. Instances of violation if any shall be reported to the District Collector, Kottayam to take legal action under the Environment (Protection) Act 1986.

iii. The given address for correspondence with the authorized signatory of the project is, Dr.Jose Joseph, Principal, Govt. Medical College Kottayam, Gandhinagar P.O, Kottayam-686008.

SABITHA S
Administrator, SEIAA

To,

Dr.Jose Joseph
Principal, Govt Medical College Kottayam
GandhiNagar P.O,
Kottayam-686008

Copy to:

1. MoEF Regional Office, Southern Zone, KendriyaSadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034
2. The Principal Secretary to Government, Environment Department
3. The District Collector, Kottayam

4. The District Town Planner, Kottayam
5. The Tahsildhar, Kottayam Taluk, Kottayam District
6. The Member Secretary, Kerala State Pollution Control Board
7. The Secretary,Kottayam Muncipality,Kottayam P.O,Kottayam
8. Chairman, SEIAA, Kerala
9. Website
10. Stock file
11. O/c

GENERAL CONDITIONS *(for projects other than mining)*

(i) Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified elsewhere.

(ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.

(iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.

(iv) The project shall incorporate devices for solar energy generation and utilization to the maximum possible extent with the possibility of contributing the same to the national grid in future.

(v) Safety measures should be implemented as per the Fire and Safety Regulations.

(vi) STP should be installed and made functional as per KSPCB guidelines including that for solid waste management.

(vii) The conditions specified in the Companies Act, 2013 should be observed for Corporate Social Responsibility.

(viii) The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.

(ix) Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating activity.

(x) All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.

(xi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.

(xii) The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

(xiii) The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including 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.

(xiv) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.

(xv) Provision should be made for supply of kerosene or cooking gas and pressure cooker to the labourers during construction phase.

(xvi) Officials from the Regional of MOEF, Banglore who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional Office of MOEF, Bangalore.

(xvii) These stipulations would be enforces among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control Pollution) at 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

(xviii) Environmental 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.

(xix) Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environment Appellate Act, 1997.

(xx) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.

(xxi) A copy of the clearance letter shall be sent by the proponent to concerned GramaPanchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.

(xxii) The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data **(both in hard copies as well as by e-mail)** and 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 respective Regional Office of MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.

(xxiii) The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.

(xxiv) The proponent should provide notarized affidavit *(indicating the number and date of Environmental Clearance proceedings)* that all the conditions stipulated in the EC shall be scrupulously followed.

SPECIFIC CONDITIONS

I.Construction Phase

i. "Consent for Establishment" shall be obtained from Kerala State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.

ii. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.

iii. A First Aid Room will be provided in the project both during construction and operation of the project.

iv. Adequate drinking water and sanitary facilities should be provided for construction workers at the site, Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.

v. All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.

vi. Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

vii. Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.

viii. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.

ix. Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the Kerala State Pollution Control Board.

x. The diesel generator sets to be during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.

xi. The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.

xii. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to the applicable air and noise emission standards and should be operated only during non-peak hours.

xiii. Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/KSPCB.

xiv. Fly ash should be used as building material in construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August 2003. (The above condition is applicable Power Stations).

xv. Ready mixed concrete must be used in building construction.

xvi. Storm water control and its re-use per CGWB and BIS standards for various applications.

xvii. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xviii. Permission to draw ground shall be obtained from the Computer Authority prior to construction/operation of the project.

xix. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.

xx. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.

xxi. Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on airconditioning. If necessary, use high quality double glass with special reflective coating in windows.

xxii. Roof should meet prespective requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.

xxiii. Opaque wall should meet perspective requirement as per energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfil requirement.

xxiv. The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National, Building Code including protection measures from lightening etc.

xxv. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.

xxvi. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the protect proponent if it was found that construction of the project has been started without obtaining environmental clearance.

II. **Operation Phase**

i. The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Treated affluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated affluent shall conform to the norms and standards of the Kerala State Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.

ii. The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.

iii. Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Kerala State pollution Control Board.

iv. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.

v. The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.

vi. Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.

vii. Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 mts.above the highest ground water table.

viii. The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.

ix. Traffic congestion near the entry and exit points from the roads adjoining the purposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.

x A Report on the energy conservation measures confirming to energy conservation norms finalise by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.

xi. Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.

xii. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.

xiii. The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

III Post Operational Phase

Environmental Monitoring Committee with defined functions and responsibility should foresee post operational environmental problems e.g. development of slums near the site, increase in traffic congestion, power failure, increase in noise level, natural calamities, and increase in suspended particulate matter etc. solve the problem immediately with mitigation measures

Administrator, SEIAA