Validity expires on 14.09.2028

सत्यमेव जयते

PROCEEDINGS OF THE STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, KERALA

Present

Dr. Nagesh Prabhu IFS(Rtd)	**Dr. V .Venu IAS**	**Dr. Jayachandran.K**
Chairman, SEIAA	**Member Secratary, SEIAA**	**Member, SEIAA**

Sub: SEIAA- Environmental Clearance for proposed Hospital buildings within the existing Holy Cross Hospital complex to be developed by M/s Holy Cross Hospital, Kottiyam in Re-survey no. 250/1, 249/11 of Adichanalloor Village & Panchayat, Kollam Taluk , Kerala by Sri. Vinny Vettukallel, Administrator, M/s Holy Cross Hospital - Granted – Orders issued.

State Environment Impact Assessment Authority, Kerala

No. 1673/EC2/2020/SEIAA
SIA/KL/MIS/153603/2020 **Dated, Thiruvananthapuram. 15.09.2021**

Read: 1. Application received on 20/05/2020 through PARIVESH from Mr. Vinny Vettukallel, Administrator, Holy Cross Hospital, Kottiyam P.O., Kollam District, Kerala-691571.
2. Minutes of the 115th SEAC meeting held on 3 – 5, November 2020
3. Minutes of the 117th SEAC meeting held on 28th, 29th and 30th December, 2020
4. Minutes of the 119th SEAC meeting held on 23rd - 25th February, 2021
5. Minutes of the 122nd SEAC meeting held on 15th - 18th June 2021
6. Minutes of the 123rd meeting of SEAC held on 27th – 30th July 2021
7. Minutes of the 111th SEIAA meeting held on 17th & 18th August 2021
9. G.O(Rt.) No.29/2019/Envt dt.12.04.2019.

ENVIRONMENTAL CLEARANCE NO. 38 /2021

Mr. Vinny Vettukallel, Administrator, Holy Cross Hospital, Kottiyam P.O., Kollam District, Kerala-691571., submitted an application for Environmental Clearance via PARIVESH on 20/05/2020 for the proposed hospital buildings within the existing Holy Cross Hospital Complex to be developed by M/s Holy Cross Hospital, Kottiyam in Re-Survey No. 250/1, 249/11 of Adichanalloor Village & Panchayat, Kollam Taluk, Kollam District Kerala. The details of the project are as follows:

SL.No.	Particulars	Details
1	Name of the Project	Proposed Hospital buildings within the existing Holy Cross Hospital Complex
2	Proposed Activity	Building Construction
3	Name of the Sector & Schedule No. (in the EIA Notification, 2006)	Category 'B' Schedule 8(a)
4	Name & Address of the Project Proponent	Mr. Vinny Vettukallel, Administrator, Holy Cross Hospital, Kottiyam P.O., Kollam District, Kerala-691571
5	Project Location	
	a) Survey Nos:	Re-survey no. 250/1, 249/11
	b) Revenue Village	Adichanalloor Village
	c) Taluk	Kollam
	d) District	Kollam
6	Total Plot Area	10.8501 ha.
7	Total Built-up Area	34,402 sqm
8	Max. height of the building	17 m
9	Max. no. of floors	Basement + Gr. floor + 3 floors
10	Project Cost	Rs. 60 Crores
11	Total Water Requirement	96 KL/day (fresh 40 KLD + Recycle 56 KLD)
12	Domestic Sewage Generation	62 KL/day
13	Total Power Requirement	2,500 kWh
14	Parking proposed	58 Cars + 70 two wheelers for the proposed buildings and additional parking space within MLCP block will be of about 300 Cars + 50 TW
15	Field Inspection Details	31st January 2021
16	CER details	Support in dialysis 20,00,000 Support in Angioplasty 30,00,000 Support in Major surgery 25,00,000
17	Validity	7 years

2. The proposal was placed in the 123rd meeting of SEAC held on 27th – 30th July 2021, The Committee scrutinized the addition documents submitted by the proponent. The Committee decided to recommend the issuance of EC with certain specific conditions.

3. The proposal was placed in the 111th SEIAA meeting held on 17th & 18th August 2021. **Authority accepted the recommendation of SEAC and decided to issue EC for 7 years subject to the following Specific Conditions in addition to the General Conditions.**

a. Implement proper sewage (waste water) conveyance system (Sewer line) for all proposed buildings, as well as, existing buildings, leading to the site of STP site, as the buildings are situated in scattered manner.

b. Add Tertiary Treatment Unit (Ultra Filtration Unit) in the existing STP and provide a proper treatment of extra quantity of 77 KLD of sewage, generated from the proposed buildings, for ensuring quality of treated water, fit for re-use /recycle for Flushing / Gardening/ Fire fighting/ Recharge of local ground water.

c. Establish Storm Water Management System, with drains and intermittent soak pits, within the compound, for recharging of local ground water level.

d. Implement suitable garland drains, all around the proposed buildings, enabling recharge of local ground water, to the extent possible and allow balance quantity, to flow to the proposed pond, after imparting primary settling, by providing suitable settling tanks/ delay ponds.

e. Provide Rain Water Harvesting System in all roof tops of proposed buildings, and utilisation of rain water, for makeup water for toilet flushing, to the extent possible.

f. Provide on-site storage facility for non-degradable solid waste, including existing hospital buildings, as well as, in the new buildings, for periodical handing over of the same to recyclers/ Local body.

g. Provide on-site storage facility for biodegradable waste, for facilitating easy and hygienic storage and for imparting treatment, in the on-site treatment facility.

h. Provide on-site storage facility for Biomedical Waste, preferably in the cellar floor/ near to those buildings, in the proposed buildings for ensuring segregated storage and inside transport of biomedical waste, for facilitating/handing over the same to Common Operator, IMAGE, in compliance with the BMW Rules 2016.

i. Implement proper facilities for tapping Solar Energy from all roof tops of proposed buildings, as mentioned about harnessing solar power in the EMP.

j. Implement a realistic and suitable green area development, with suitable species of trees and plants, specifically suitable for hospital environment, by avoiding fruit bearing plants. Suitable vegetation should be developed, appropriately on the ground as well as over built structures such as roofs, basements, podiums etc.

k. Ensure a climate responsive design as per Green Building Guidelines in practice, and exposed roof area and covered parking with material, having high solar reflective index.

l. Ensure that building should have facilities for catering needs of differently-abled citizens.

m. Ensure use of water efficient plumbing features and twin line plumbing system, for ensuring recycle/reuse of treated waste water.

n. Ensure that the design of the building will be done in compliance to Energy Building Code as applicable.

o. Ensure action for avoiding possible idle motor vehicle emissions, from the ramp type of MLCP proposed in the Hospital Complex.

p. Ensure collection, storage and disposal of hazardous wastes including bio medical waste as per relevant rules.

q. Considering the seriousness of COVID pandemic in the State, the Project Proponent shall carry out certain activities under Corporate Environmental Responsibility (CER) leading to creation of temporary Covid care facilities and other related activities connected with managing the Covid pandemic in the State. This will be done in consultation with local self-governments and as per an action plan approved by District Collector and SEAC. The indicated cost for this purpose will be one percent of the total project cost. The activities so implemented shall be shown in the half yearly completion report.

r. 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).

4. In this circumstance, Environmental Clearance is granted to Mr. Vinny Vettukallel, Administrator, Holy Cross Hospital, Kottiyam P.O., Kollam District, Kerala-691571., for the proposed hospital buildings within the existing Holy Cross Hospital Complex to be developed by M/s Holy Cross Hospital, Kottiyam, Kollam Taluk, Kollam District, Kerala, subject to the Condition in para 3 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.

5. 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.

6. Validity of the Environmental Clearance will be for **Seven years** from the date of issuance of E.C, subject to inspection by SEIAA or 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.

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

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

9. The Half Yearly Compliance Report (HYCRs) with its contents of a covering letter, compliance report and environmental monitoring data has to be in PDF format merged into a single document. The email should clearly mention the name of the project, EC No and date, period of submission and to be sent to the Regional Office of MoEFF& CC by email only at email ID rosz.bng-mefcc@gov.in . Hardcopy of HYCRs shall not be acceptable.

10. The given address for correspondence with the authorized signatory of the project is Mr. Vinny Vettukallel, Administrator, Holy Cross Hospital, Kottiyam P.O., Kollam District, Kerala-691571

Anil P.Antony
Administrator, SEIAA
For Member Secretary, SEIAA

To,

Mr. Vinny Vettukallel
Administrator
Holy Cross Hospital
Kottiyam P.O.
Kollam District
Kerala-691571

Copy to:

1. MoEF Regional Office, Southern Zone, KendriyaSadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.(through e-mail: rosz.bng-mefcc@gov.in)
2. The Principal Secretary to Government, Environment Department
3. The Director, Directorate of Environment & Climate Change, 4th Floor KSRTC Bus Terminal, Thampanoor, Thiruvananthapuram, Kerala 695001
4. The District Collector, Kollam

5. The District Town Planner, Kollam
6. The Tahsildhar, Kollam Taluk, Kollam District
7. The Member Secretary, Kerala State Pollution Control Board
8. The Secretary, Adichanalloor Village Office, Adichanallur, Ithikkara - Ayoor Road, Adichanalloor, Kerala 691573.
9. Chairman, SEIAA, Kerala
10. Website
11. Stock file
12. O/c

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA), KERALA

GENERAL CONDITIONS FOR PROJECTS OTHER THAN MINING

1. 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.
2. The project proponent should 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 Clearance and copies of clearance letters are available on the website of SEIAA www.seiaakerala.in. 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.
3. The proponent shall send a copy of the clearance letter to the concerned Grama Panchayath/District Panchayath/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 uploaded on the website of the company.
4. 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.
5. Consent to Establish and Consent to Operate from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating activity. 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. Copies of statutory clearance obtained shall be enclosed along with first half yearly compliance report.
6. If blasting is involved in the preparation of site, the required clearances from the competent authorities should be obtained.
7. The stipulations/conditions issued 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, Solid Waste Management Rules,2016 Plastic Waste Management and Handling Rules, 2016, Construction and Demolition Waste Management Rules 2016, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

8. The conditions specified in the EIA notifications 2006 and subsequent amendments, the specific directions given by SEIAA/SEAC should be followed under corporate Environment Responsibility. The activities carried out under CER should be listed with details in Half yearly compliance report along with Status of Implementation and certificates from the beneficiaries and photographs.
9. Safety measures should be implemented as per the Fire and Safety Regulations/SDMA guidelines.
10. The environmental safeguards contained in the EIA Report should be implemented in letter and spirit and status of implementation of each one should be included in the half yearly compliance Report.
11. Environment Monitoring Committee as agreed under the affidavit filed by the proponent should be formed and made functional. Environmental Monitoring Committee with defined functions and responsibility should foresee post operational environmental problems (Eg. 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.) and action taken to solve these immediately with mitigation measures
12. Suitable avenue trees should be planted on either side of approach road and internal roads and open parking areas, if any. The proponent should plant trees at least 5 times of the loss of trees that has occurred while clearing the land for the project. The native flowering and fruiting species only shall be used for planting and planning should be done considering the nature of public use.
13. 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 power grid and consumption in future.
14. The proponent shall submit half yearly compliance 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 same on their website and shall update the same periodically. The

compliance repot shall be simultaneously sent to the Regional Office of Ministry of Environment, Forests and Climate Change, Govt. of India at Bengaluru and also to SEIAA.

15. The project proponent is responsible for implementing all the provisions of labour laws applicable from time to time. Provision should be made for providing cooking facilities and supply of kerosene or cooking gas to the labourers.
16. The proponent shall co-operate with and provide facilities and documents/data to the Agencies including the Officials from the Regional of Ministry of Environment, Forests and Climate Change, Bengaluru during their inspection as part of monitoring the implementation of environmental safeguards.
17. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
18. In case of transfer of EC, the matter shall be intimated and approval from the Authority shall be obtained as per the existing norms.
19. 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.
20. 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.
21. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal 1, if preferred, within a period of 30 days as prescribed under section 11 of the National Green Tribunal Act, 1997.

General Conditions specific to Construction Phase

1. All statutory permissions including "Consent for Establishment" to STP/ETP, Solid waste management plant, Power Generator etc shall be obtained from Kerala State Pollution Control Board under Air Act and Water Act and Environment (Protection) Act. A copy shall be submitted to the Ministry/SEIAA before start of any construction work at the site.
2. 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 lightning etc. Building constructed in the

runout area of landslide / rock fall area, shall be provided with suitable structures/ measures to prevent earth materials to hit the structure.

3. All required sanitary and hygienic measures should be in place before starting construction activities which are to be maintained throughout the construction phase.
4. A First Aid Room shall be provided at the project site both during construction and operation phases of the project.
5. Provide safe and healthy basic facilities for construction workers as per the Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996
6. Adequate drinking water and sanitary facilities should be provided for construction workers at the site, Provision should be made for mobile toilets. Safe disposal of wastewater and solid wastes generated including piling debris during the construction phase should be ensured.
7. Unless provided otherwise, all the topsoil excavated during construction phase should be stored and re-used for backfilling/ horticulture/landscaping purposes within the project site.
8. Top soil excavated should not be used for reclaiming wetlands.
9. The muck shall be disposed of only at approved sites with the approval of competent authority. The disposal should not create any adverse effect on the neighbouring communities and should be disposed taking necessary precautions for general safety and health of the public. Proof regarding the same shall be enclosed with the respective six monthly compliance reports.
10. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such materials must be secured so that they will not leach into the ground water.
11. Any hazardous waste generated during construction phase, should be disposed off to authorised/approved Waste Collectors as per applicable rules and norms with necessary approval of the Kerala State Pollution Control Board.
12. Soil and ground water samples shall be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
13. Storm water control and its re-use measures as per CGWB and BIS standards shall be followed for various applications.
14. 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. During the transportation of building materials/products, the vehicles shall be covered with suitable materials to prevent dust pollution.

15. 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 taken to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/KSPCB.
16. The diesel generator sets used during construction phase should be of low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards. 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. DG sets shall be installed and made functional as per guidelines of KSPCB.
17. Ready mixed concrete must be used in building construction. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
18. Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.
19. Separate dual plumbing line should be provided; one line for Toilet Flushing / Gardening / Vehicle wash and another separate line for other domestic uses, for ensuring reuse / recycle of treated waste water to the maximum extent possible.
20. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
21. 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.
22. Water efficient plumbing features should be adopted
23. Use of glass may be reduced by 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating on windows.
24. Design of the building should be in compliance to Energy Building Code as applicable

25. Roof should meet perspective requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill the requirement.
26. Opaque wall should meet perspective requirement as per energy Conservation Building Code which is proposed to be mandatory for all air conditioned spaces while it is optional for non-airconditioned spaces by use of appropriate thermal insulation material to fulfill requirement
27. Climate responsive design as per Green Building Guidelines in practice should be adopted
28. Building design should cater to the differently-abled citizens
29. Vegetation should be adopted appropriately on the ground as well as over built structure such as roofs, basements, podiums etc.
30. Exposed roof area and covered parking should be covered with material having high solar reflective index
31. Regular supervision of the above and other measures should be in place all throughout the construction phase, so as to avoid disturbance to the surroundings.
32. 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. (Applicable to Power Stations).
33. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining the statutory clearances.

General Conditions specific to operation phase

1. The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light and ventilation.
2. Sewage Treatment Plant (STP) should be installed and made functional as per KSPCB guidelines. On/site Treatment of Sewage and Sullage should be done with scientific method ,ensuring efficiency of treatment, ease in operation , sustainability and it should contain the units of primary, secondary, tertiary and quaternary type of treatment scheme. The installation of the STP should be certified by an independent expert and a report in this regard should be submitted to the Ministry/SEIAA before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water shall be done through a decentralized treatment. Reuse of water shall be practiced for flushing process and garden purposes. Discharge of

unused treated effluent shall conform to the norms and standards of the Kerala State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP.

3. Solid waste management plant shall be installed and made functional as per the guidelines of KSPCB. 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. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.
4. Provide adequate Material Collection Facility (MCF) for storage of non-biodegradable waste including plastic waste and E waste, for handing over the same to Recyclers/ Local Body , as stipulated by Kerala State Pollution Control Board.
5. 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.
6. Low sulphur diesel shall be used as fuel in DG sets.The location of the DG sets may be decided in consultation with Kerala State pollution Control Board. DG sets should not be housed in sub basement levels.
7. 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.
8. The green belt of adequate width and density shall be raised preferably with local species along the periphery of the project site so as to provide protection against particulate matter and noise.
9. Weep holes shall be provided in the compound walls to ensure natural drainage of rain water during the monsoon period.
10. Rain Water Harvesting structures should be installed as per the prevailing provisions of KMBR/KPBR, unless otherwise specified elsewhere. Rain water harvesting measures for roof run-off and surface run-off, as per approved building plan 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 m above the highest ground water table.

11. The ground water level and its quality should be monitored regularly in consultation with State Groundwater Department/Central Ground Water Authority.
12. Traffic congestion near the entry and exit points from the roads adjoining the project site must be avoided. Parking should be fully internalized and no public space should be utilized.
13. A Report on the energy conservation measures, conforming to energy conservation norms issued 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.
14. Energy conservation measures like installation of LED /CFLs/TFLs for the lighting the areas outside the building should be an integral part of the project design and should be in place before project commissioning. Used LED/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. Solar panels may be used to the extent possible.
