Date: 29/06/2023

To,

The Additional Principal Chief Conservator of Forests (C),
Ministry of Environment Forests & Climate Change,
4th Floor, E&F Wing,
Kendrya Sadan, Koramangala,
Bengaluru – 560034.

Sub: Environmental Clearance for proposed expansion of existing hospital complex project with increase in built-up area from 53,246.10 sqm. to 1,40,907.42 sqm. at Puliyannoor village, Kozhuvanal Panchayat, Meenachil Taluk, Kottayam District, Kerala by M/s Palai Diocesan Medical Education Trust – regarding.

Ref: 1) F.NO. 21-25/2022-IA-III Dated – 20/05/2022 from MoEF, New Delhi
2) EC Identification No. EC22A038KL132864

Sir,

The compliance report on EC conditions for the period ending 03/2023 is attached.

Thanking you,

Yours faithfully,

Msgr. Dr. Joseph Kaniyodickal
Managing Director
Mar Sleeva Medicity Palai
Mob: 9188525940
Email: managingdirector@marsleevamedicity.com

Compliance report on EC conditions for the period ending 03/2023

Sub: Environmental Clearance for proposed expansion of existing hospital complex project with increase in built-up area from 53,246.10 sqm. to 1,40,907.42 sqm. at Puliyannoor Village, Kozhuvanal Panchayat, Meenachil Taluk, Kottayam District, Kerala by M/s Palai Diocesan Medical Education Trust – regarding.

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2) EC Identification No. EC22A038KL132864

Sir,

The Pala Diocesan Medical Education Trust was established to undertake charitable activities envisaged by the Catholic Church in the geographical area allotted to it. The Pala Diocesan Medical Education Trust has constructed a hospital on a plot area of 10.0771 hectare. The construction work of 280 bedded hospital is completed with built up area of 53246.10 sqm.

The hospital is having basement, ground floor + 6 floors (total eight floors only). The civil works of the hospital building as well as the electrical, sanitary, water supply, firefighting, air conditioning etc. are completed and is functional.

There is a proposal for expansion of Hospital complex and after expansion, the total built up area will be 1,40,907.42 sqm and the total 1180 Nos beds.
The construction as per EC Identification No: EC22A038KL132864 has not yet started.

General precautions to reduce the environmental impact during construction phase are indicated below:-

1. Road around the Hospital has already been black topped.
2. Acoustic enclosure is provided with DG set.
3. First Aid facility with medicine, safety gadgets like safety belts, helmets, boots, gloves, pure drinking water, electricity, sanitary facilities etc. are provided at site to labourers including insurance cover.
4. Rain water harvesting tank is provided at site.

The para wise comments as per the above order of MoEF are as under:-

A. Specific Conditions:

i. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA). Fresh water requirement shall not exceed 478 KLD during operational phase.

Permission to draw 478 KLD of water has already been received from Ground Water Department, Kerala vide file no: GWK/11582/2022 as per application dated 09/08/2022 (Copy attached – Annexure – A).

ii. As proposed, wastewater shall be treated in onsite STPs of total 740KLD capacity and ETP of 30 KLD capacity. At least 550 KLD of treated water from the STP and 23 KLD of treated water from the ETP shall be recycled and re-used for flushing (349 KLD), for gardening (32 KLD),for boiler (40 KL) and for make-up water requirement for cooling towers attached with the HVAC system (129 KLD + 23 KLD). There shall be no discharge of treated water outside the project premises, as committed.

The new construction has not yet been started. All the above points shall be taken care during construction and also on completion of the new constructions. There is no discharge of treated water from STP to the outside premises.

iii. The project proponents would commission a third-party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.

Officials from KPCB used to inspect the functioning of STP with respect to quality and quantity of recycled water etc. The treated effluent from the STP is utilized for agriculture and gardening purposes. The discharge from the STP confirms to the norms and standards of Kerala State Pollution Board. Online Monitoring System is installed to monitor 5 parameters of treated water of STP. They are COD, BOD, TSS, PH and Oil in Water. The reported values are sent to PCB server every 15 minutes. These values are found to be within the prescribed limits. No odour problem is noticed. The installation of STP has already been certified by Kerala Pollution Control Board.

iv. Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 30,049 sqm. As proposed, at least 1,600 trees shall be maintained within the site during the operation phase of the project. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sqm. of land should be planted and maintained. The existing trees will be counted for this purpose. Plantations to be ensured species (cut) to species (planted). The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

    The new construction as per this MoEF sanction is yet to be started. A minimum of 01 tree for every 80 sqm. of land shall be planned as directed. Water intensive and/or invasive species will not be used for landscaping. Total number of trees already planted from 4/2022 to till date is 516 nos.

v. No tree can be felled/transplanted unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted)

    No trees will be cut without absolute necessity

vi. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e., planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.

    The area of green belt development shall be taken up as per the details provided in the project document with the land development works.

vii. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, RWH tank of 4 ML total capacity shall be provided by PP for rain water harvesting after filtration.

Rainwater Harvesting tank of 1911.50 KL capacity has already been provided. The required quantity of rainwater tank shall be provided as per the local byelaws on taking up the new constructions.

viii. The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016. As committed, biodegradable waste shall be utilized through the Bio-Gas generation plant/bio-bin unit to be installed within the site. Inert waste shall be disposed off as per norms at authorized site. The recyclable waste shall be sold to authorized vendors/recyclers. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016. Bio-medical wastes shall be disposed as per Bio-Medical Waste (Management & Handling) Rules, 2016.

Wastes are segregated into biodegradable and non – biodegradable components as per SWM Rules, 2016. Recyclable wastes are sold to vendors. Construction wastes are disposed off as per C&D Waste Management Rules, 2016.

ix. The PP shall provide electric charging points in parking areas for vehicles as committed.

The parking area has been partially developed and on during further development, provision for charging for electrically operated vehicles (20%) will be provided in each parking areas.

Electric charging points as per requirement shall be provided on development of parking area on completion of buildings.

x. As committed, solar energy installation of 1,167 kWp capacity shall be implemented.

Solar energy 205 kWp is provided. Balance requirements of solar energy installation shall be provided on completion of each building.

xi. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

Noted, and the work will started only on getting all approvals.

B. Standard Conditions:

I. Statutory compliance:

i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

Noted. The work will be started only on getting necessary clearance from all relevant agencies.

ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.

Structural safety certificate has already obtained for the old constructions. For the new construction, structural safety shall be obtained during the construction and shall be submitted for record.

Approval from the Fire Fighting Department shall be obtained from the local fire department on completion of each building as per rules.

iii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project

Not fall under the forest land.

iv. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

Not fall under the National Board for wildlife

v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

The consent from state control board has already obtained and its valid upto 30-06-2024. (Copy attached – Annexure – B)

vi. The project proponent shall obtain the necessary permission for drawl of ground water/surface water required for the project from the competent authority.

Permission to draw 478 KLD of water has already been received from Ground Water Department, Kerala vide file no: GWK/11582/2022 as per application dated 09/08/2022.

vii. 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.

Total projected requirement of power on completion is 9621 KW. Permission for KSEB is available for 4005 KW for the present. Before taking up new construction the permission shall be obtained from KSEB in this regard.

viii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

Noted and shall be strictly followed

ix. The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.

Agreement has already been made with M/s Green Worms Eco Solutions LLP (PCB consent No: G19ERRCTON98204) for solid waste, plastics, paper and scrap, pharmaceutical waste, and e-waste, and is valid upto 01/06/2025. (Copy attached – Annexure – C)

x. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

Noted and shall be strictly followed.

II. Air quality monitoring and preservation:

i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

Construction work has not been started yet. All precaution shall be taken up during demolition and construction, such as barricading the area, covering the sand etc. with plastic sheets to reduce air pollution.

ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

Noted

iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5) covering upwind and downwind directions during the construction period.

To monitor the quality of ambient air quality in the project site, the project proponent regularly monitor the PM 10 and PM 2.5 covering upwind and downwind directions during the construction period. This will be submitted along with the Half Yearly Compliance Report.

iv. 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.

Enclosed type generator is only provided. Low sulphur diesel is only being used. Location of DG set is approved by Kerala State Pollution Control Board. The height of stack of DG is provided as per rule.

v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3- meter height). Plastic/tarpaulin sheet

covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

These measures shall be strictly followed during construction.

vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

Noted and shall be strictly followed during construction

vii. Wet jet shall be provided for grinding and stone cutting.

Noted and shall be strictly followed.

viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

Noted and shall be strictly followed during construction.

ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Management Rules 2016.

All the construction debris shall be disposed off below the road formation.

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

Low sulphur diesel is only being used for DG sets.

xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

Noted and is provided as per KPCB Standards. Stack emission monitoring report is attached – Annexure D

xii. For indoor air quality the ventilation provisions as per National Building Code of India

Ventilation shall be provided as per the requirement of National Building Code of India

III. Water quality monitoring and preservation:

i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

No change in the topography and contours at site. Hence the existing storm water drain is sufficient. Storm water drains at the required locations at the site with the required capacities are provided around the buildings to cater the need of surface run off.

ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

Noted and shall be strictly followed.

iii. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

The details of water usage for the period of report is indicated below:-

1) Fresh water – 69928 KL
2) Treated water – 30625 KL
3) Rainwater – 60 KLD (including the rainwater collected in the rainwater harvesting tank)

Records for the usage of fresh water and recycled water is attached as Annexure – E

iv. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

Water is not being supplied by Municipality. The test results of water available at site is attached as Annexure – F

v. At least 20% of the open spaces as required by the local building bye- laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

Noted and shall be strictly followed during constructions.

vi. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

Dual plumbing system shall be provided and recycled water shall be used for flushing, landscaping, car washing, irrigation etc.

vii. Use of water saving devices/fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.

Low flow flushing fixtures and low flow faucets are provided in the existing hospital and also shall be provided in the New Construction also.

viii. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

Dual plumbing system will be provided in the building being constructed.

ix. Water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.

Noted and shall be strictly followed during construction.

x. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

Rainwater storage tank and recharging system shall be provided as per the norms of KBR.

xi. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

At present the rainwater is being harvested for the use of Hospital. The ground water department has already given approval in this regard (Annexure – A).

xii. All recharge should be limited to shallow aquifer.

Noted

xiii. No ground water shall be used during construction phase of the project.

Noted

xiv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

Permission from the Kerala Ground Water Department has already been obtained vide file no: GWK/11582/2022 as per application dated 09/08/2022(Annexure A).

xv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

Noted. Records for freshwater and recycled water for 10/22 to 03/23 is attached – Annexure E.

xvi. Sewage shall be treated in the STP with tertiary treatment.

STP of 480 CMD is at present functioning at the site.

xvii. No sewage or untreated effluent water would be discharged through storm water drains.

No sewage/ untreated effluent shall be discharge through the storm water drain.

xviii. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

The treated effluent from the STP is utilized for agriculture and gardening and other purposes. The discharge from the STP confirms to the norms and standards of Kerala State Pollution Board. Online Monitoring System is installed to monitor 5 parameters of treated water of STP. They are COD, BOD, TSS, PH and Oil in Water .The reported values are sent to PCB server every 15 minutes. These values are found to be within the prescribed limits. No odour problem is noticed. The installation of STP has already been certified by Kerala Pollution Control Board.

xix. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

The discharge from the STP confirms to the norms and standards of Kerala State Pollution Board. Online Monitoring System is installed to monitor 5 parameters of treated water of STP. They are COD, BOD, TSS, PH and Oil in Water .The reported values are sent to PCB server every 15 minutes. These values are found to be within the prescribed limits. No odour problem is noticed.

xx. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

STP is only provided.

IV. Noise monitoring and prevention

i. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

Air quality is monitored and result is attached. Annexure – G.

ii. 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.

Noise level is monitored and result is attached. Annexure – H

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.

DGs are provided with Acoustic enclosures. Ear plugs shall be supplied to the operating personals of generators.

V. Energy Conservation measures:

i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.

Noted and shall be followed strictly

ii. Outdoor and common area lighting shall be LED.

All outdoor and common area lights are provided with LED to reduce the energy consumption.

iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

Noted. The design of the building is as per conservation of Energy.

iv. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

LED light is only provided in this campus and in future, LED shall only be provided.

v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.

Noted and shall be provided on completion of each building.

vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

Solar Power plant of 205 KWp capacity is installed in the hospital. Balance as per requirement shall be provided on completion of each building.
Solar water heaters as required shall also be provided on completion of each building.

VI. Waste Management:

i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

The Panchayat do not have facility for handling solid wastes. Solid wastes generated from Projects shall be disposed off with in the campus for filling under road formation and undulated areas.

ii. Disposal of muck during construction phase shall 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.

Noted. No muck will be generated as no piling work is done at the campus.

iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

Noted. Separate colour coded waste bins for dry and wet waste are provided in all floors of Hospital.

iv. Organic waste compost/Vermiculture pit/Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.

Organic waste is composted in composting machine.

v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

All non – biodegradable wastes are collected by the approved agency, Green Worms Eco solutions. The collection report is made available to PCB on quarterly basis.

vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

Noted.

vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials.

Noted. Environment friendly material shall be used on the works as far as possible.

viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended 11 as on 27thAugust, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

Noted.

ix. 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.

Noted.

x. 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

LED lights are only used. CFLs and TFLs are not used in the Project.

VII. Green Cover:

i. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

Noted and will be complied with.

VIII. Transport

i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.

b. Traffic calming measures.

c. Proper design of entry and exit points.

d. Parking norms as per local regulation.

Noted. In and out are specifically indicated to control the flow of traffic. Foot path is provided for the pedestrians. Road markings are provided. Parking area is separately defined.

ii. 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 applicable air and noise emission standards be operated only during non-peak hours.

Pollution check certificate is mandatory for all vehicles to ply on roads in kerala. Transportation inside the campus shall be regulated during peak hours.

iii. 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.

Noted.

IX. Human health issues:

i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

Labours shall be provided with dust mask.

ii. For indoor air quality the ventilation provisions as per National Building Code of India.

Noted and shall be provided.

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

Noted. Fire and safety department, attached to hospital monitors emergency preparedness strictly on daily basis.

iv. 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.

Noted and shall be provided.

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

Noted and shall be done on regular basis.

vi. A First Aid Room shall be provided in the project both during construction and operations of the project

First Aid box shall be provided at site on start of construction works. Being hospital expansion, all facilities are available nearby.

X. Miscellaneous:

i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

Already advertised in The New Indian Express and Deepika on 24-05-2022, and copy attached in the half yearly report ending 09/22.

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.

Copies of EC has already submitted to the local bodies vide letter No: Nil dt; 24-05-2022, details attached as Annexure I.

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.

Noted and is being complied.

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.

Noted

v. 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.

Noted.

vi. 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.

Environment cell at the company head quarter have already been constituted and Managing Director as Chairman.

The Project cell has also been constituted and the Project Director as Chairman.

vii. 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

Noted

viii. 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.

Form – V for the financial year 2022-2023 has already been submitted to KPCB on 16/06/2023 and uploaded in the Hospital Website.

ix. 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.

Noted.

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

Noted and shall be strictly followed.

xi. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the Expert Appraisal Committee.

Noted.

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

Noted.

xiii. 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.

Noted.

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

Noted.

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

Noted.

xvi. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full Minutes of the 85thMeeting of Expert Appraisal Committee (Infra-2) held during 30-31st March, 2022 cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

Noted.

xvii. 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.

Noted.

xviii. 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

Noted.

Format-V

Annexure- (A)

GROUNDWATER DEPARTMENT. KERALA

YIELD TESTING OF WELLS

CERTIFICATE

File No	GWK/11582/2022
Date of Application	09.08.2022
Date of Test	02.02.2023
Name of Applicant	Msgr. Dr.Joseph Kaniyodickal
Address	Managing Director Mar Sleeva Medicity Palai (Near Meenachil river)

Location

Lattitude	9.682272
Longitude	76.64447

Panchayath/Municipality/Corporation	Kozhuvanal
Block	Lalam
District	Kottayam
Depth of Well (m)	10.25
Diameter	4.2
Static Water Level (m)	8.12
Fracture zones/well screens	
Rock Type	Gneiss
Type of Well	Open well
Nature of Aquifer	Unconfined
Type of Aquifer	Alluvium
Purpose of Well	Hospital use
Yield of the Well m^3/day	419152 m^3/day
Recommended yield litre/day	478 m3/day

RECOMMENDED PUMPING SCHEDULE

RECOMMENDATION FOR THE SELECTION OF PUMP

Rate of Pumping (1hr)	60000 lph	Recommended H.P	5HP
Pumping Duration	1 Hr	Type of Pump	Submercible
Number of Cycle	8	Diameter of Pump	
Duration of Pumping Cycle	3hr	Depth of Installatoin	
Pumping Intervel	3 hr	Total Head	

Remarks

Suitable artificial structure should be implemented by the firm for the sustainability of the pumping source and other water sources of the area. The firm should analyse the water quality and potable quality should be ensured before implementation of the firm.

The above results are based on the pumping test studies carried out in the well and is based on the evaluation of the scientific data. The recommendations given in the report were based on the actual pumping test performed in the well and by considering the existing groundwater users in the locality. The yield of the well may vary depending upon the discharge - recharge conditions and overall development of aquifer system in future. It may also be possible that the results may vary due to damage of wells, breakage of casing pipes, clogging of wells screens. Hence it is suggested to check the yield of the well once in every 3 years for best performence of the well. For Packaged drinking water projects, and other water intensive Industries It is mandatory to check the yield of the well once in every 3 years for the renewal of licence from the local bodies.

Jr.Hydrogeologist

District officer

PTO

Hydrogeologist

Format-V

GROUNDWATER DEPARTMENT. KERALA

YIELD TESTING OF WELLS

CERTIFICATE

File No	GWK/11582/2022	Location	
Date of Application	09.08.2022	Lattitude	9.688447
Date of Test	03.02.2023	Longitude	76.641817
Name of Applicant	Msgr. Dr.Joseph Kaniyodickal		
Address	Managing Director Mar Sleeva Medicity Palai (Near Mutholikadavu)		

Panchayath/Municipality/Corporation	Kozhuvanal
Block	Lalam
District	Kottayam
Depth of Well (m)	13.5
Diameter	6.47
Static Water Level (m)	9.4
Fracture zones/well screens	
Rock Type	Gneiss
Type of Well	Open well
Nature of Aquifer	Unconfined
Type of Aquifer	Alluvium
Purpose of Well	Hospital use
Yield of the Well m^3/day	366387 m^3/day
Recommended yield litre/day	478 m3/day

RECOMMENDED PUMPING SCHEDULE

RECOMMENDATION FOR THE SELECTION OF PUMP

Rate of Pumping (1hr)	60000 lph	Recommended H.P	5HP
Pumping Duration	1 Hr	Type of Pump	Submercible
Number of Cycle	8	Diameter of Pump	
Duration of Pumping Cycle	3hr	Depth of Installatoin	
Pumping Intervel	3 hr	Total Head	

Remarks

Suitable artificial structure should be implemented by the firm for the sustainability of the pumping source and other water sources of the area. The firm should analyse the water quality and potable quality should be ensured before implementation of the firm.

The above results are based on the pumping test studies carried out in the well and is based on the evaluation of the scientific data. The recommendations given in the report were based on the actual pumping test performed in the well and by considering the existing groundwater users in the locality. The yield of the well may vary depending upon the discharge - recharge conditions and overall development of aquifer system in future. It may also be possible that the results may vary due to damage of wells, breakage of casing pipes, clogging of wells screens. Hence it is suggested to check the yield of the well once in every 3 years for best performence of the well. For Packaged drinking water projects, and other water intensive Industries It is mandatory to check the yield of the well once in every 3 years for the renewal of licence from the local bodies.

Jr.Hydrogeologist

District officer

Hydrogeologist

Annexure-'B'

FILE NO : PCB/HO/KTYM/ICO/R17KOT4637467/2019
Date of issue : 31/08/2019

KERALA STATE POLLUTION CONTROL BOARD

CONSENT TO

OPERATE/AUTHORISATION/REGISTRATION

ISSUED UNDER

The Water (Prevention & Control of Pollution) Act, 1974
The Air (Prevention & Control of Pollution) Act, 1981

and

The Environment (Protection) Act, 1986

As per Application No. :11201427
Dated:18-07-2019

TO

M/s MAR SLEEVA MEDICITY
Cherupumkal,
Palai,
Kottayam - 686575

Consent No. :PCB/HO/KTYM/ICO/ 06 /2019
Valid Upto :30/06/2024

GENERAL

1.1. This integrated consent is granted subject to the power of the Board to withdraw consent, review and make variation in or revoke all or any of the conditions as the Board deems fit.

1	**VALIDITY**	30/06/2024
2	Name and Address of the establishment	MAR SLEEVA MEDICITY CHERUPUMKAL,PALAI,KOTTAYAM 686575
3	Communication	Telephone :04822-202000 Fax :04822-211379 E-mail:aramanapala@gmail.com
4	Occupier Details	Msgr. Fr. Abraham Kollithanathumalayil, President, Palai Diocesan Medical Education Trust, Bishop's House, Palai, Kottayam
5	Local Body	Kozhuvanal Panchayath
6	Survey Number	85/1A,85/3,85/4,85/6,86/1,86/3,86/3A,86/3B,86/4,86/5A,86/5-2,86/6-1,86/7,87/1,87/2,87/4,87/5A1,87/6,87/7,88/4,88/6,88/6/2,98/2,100/5,100/6,100/7,100/8
7	Village	Puliyannoor
8	Taluk	MEENACHIL
9	District	KOTTAYAM
10	Capital Investment(Rs in Lakhs)	15000.00 Rs in Lakhs
11	Scale	Large
12	Category	RED
13	Annual fee(Rs) Total Fee remitted(Rs)	Rs. 3,50,000 /- Rs. 29,58,267/-
14	Activity	• Phase 1 - Hospital Having 280 beds in first phase - 2 ward,10 Theaters, Neurology, Oncology, Cardiology,pediatric, Gastroenterology, Gynecology,etc with total built up area – 53246.10 sq. mtrs. • DG Set 750 KVA- 2 nos.
15	Mode of disposal of Bio Medical Waste	IMAGE

2. CONDITIONS AS PER
The Water(Prevention and Control of Pollution)Act, 1974

2.1 Sewage Treatment Plant (STP) consisting of treatment units having adequate capacity shall be functional/ arrangement for sewage treatment shall be provided, as per the Integrated Consent to Establish, at all times during the operation of the establishment. Additional facilities required, if any, to achieve the standards laid down by the Board u/s 17(1) (g) of the Water Act shall also be made along with.

2.2 Water consumption: 126 kLD

2.3 Effluent generation: 100.8 kLD

The characteristics of effluent after treatment shall confirm to the following tolerance limits:

.NO.	Characteristics	Unit	Tolerance Limits	
			Irrigation/ Soak pit	Flushing/ Gardening/ Reuse
1	pH	-	6.5-9	6.5-8.5
2	Bio assay test	-	90% survival of fish after 96 hrs in 100% effluent	-
3	pH	-	6.5-9	6.5-8.5
4	BOD	mg/l	10	3
5	TSS	mg/l	10	-
6	SS	mg/l	-	10
7	Oil & Grease	mg/l	10	1

2.5 Mode of disposal of treated effluent: Treated water will be used for flushing and gardening to the maximum extent and balance shall be disposed through soakpit.

3. CONDITIONS AS PER
The Air(Prevention and Control of Pollution)Act, 1981

3.1 Adequate air pollution control measures shall be operational at all times during the functioning of the industry. Additional facilities required, if any, to achieve the standards laid down by the Board shall also be made along with.

Stack No.	Sources of Emission	Emission Rate(Nm3/Hr)	Stack Height above		Control Equipment
			Ground Level	Roof Level	
1	750 kVA DG set * 2 no	-	-	5.5 m	acoustic enclosure

3.2 Emission characteristics shall not exceed the following:

Sl.No.	Parameter	Limiting Standards (mg/Nm3)

4. CONDITIONS AS PER
The Environment (Protection) Act, 1986.

4.1 Bio-Medical waste shall be handled, stored and disposed off as per the Bio-Medical Waste Management Rules, 2016.

4.1.1 Activities for which Authorisation is granted:

Collection		**transport**	
Reception		**Storage**	

...ient		Reprocessing/Disposal	

4.2 Type, quantity and mode of storage/collection/disposal of hazardous wastes shall be as follows:

Sl.No.	Bio-Medical Waste	Schedule Category	Quantity Tonne/year

Mode of	
Storage	Disposal

4.2 Used lead acid batteries shall be disposed of as per the Batteries (Management and Handling) Rules, 2001

4.3 E-waste shall be disposed off safely as per the E-Waste (Management)Rules, 2016.

5. SPECIFIC CONDITIONS

5.1. For renewal of the consent in case of continuance of discharge/operation of the industry, application in the prescribed form shall be submitted through the web portal of the Board for Online Consent Management & Monitoring system on or before 31.04.2024. Late application will be accepted with a fine or late fee as applicable.

5.2. Bio-medical waste shall be handled in accordance with the provisions of the Biomedical Waste (Management) Rules 2016.

5.3. Effluent Treatment plant (ETP) shall be functional for the treatment and disposal of waste water generated in the unit at all times.

5.4. The location of the structures including ETP shall be as shown in the drawing attached and no change or alteration to the above shall be made

5.5. Annual report shall be submitted in form IV of BMW Management Rules 2016 on or before 31st March every year for the period from January to December of the preceding year.

5.6. Noise generated by diesel generator sets shall be minimized by providing acoustic enclosures and vibration minimizing system.

5.7. Arrangements for collection, segregation, storage, treatment and disposal of solid waste including garbage shall be provided as per Solid Waste Management Rules, 2016.

5.8. Fire protection equipment provided shall be maintained.

5.9. The conditions specified in the Environmental Clearance no. 21-25/2011-I.A.III dated 12/03/2012 shall be strictly complied with.

5.10. Natural drainage of the area shall be protected.

5.11. Solid waste generated shall be disposed off as per the Solid Waste Management Rules,2016.

5.12. Periodic/Annual Reports shall be submitted through the E-Correspondence in the Boards Online Web Portal.

5.13. Renewable sources of energy such as solar energy shall be utilized for lighting and heating wherever possible.

5.14. There shall be easy access to each and every effluent treatment unit and the final outlet for inspection and drawing of effluent samples.

5.15. Energy and water conservation measures shall be adopted as far as possible.

SREEKALA S Digitally signed by SREEKALA S Date: 2019.09.07 15:17:59 +05'30'

DATE :31/08/2019

SIGNATURE & SEAL OF ISSUING AUTHORITY
MEMBER SECRETARY

KERALA STATE POLLUTION CONTROL BOARD

To

M/s. Mar Sleeva Medicity,
Cherupumkal,
Palai,
Kottayam - 686575

1. This digitally signed document is legally valid as per the Information Technology Act 2000

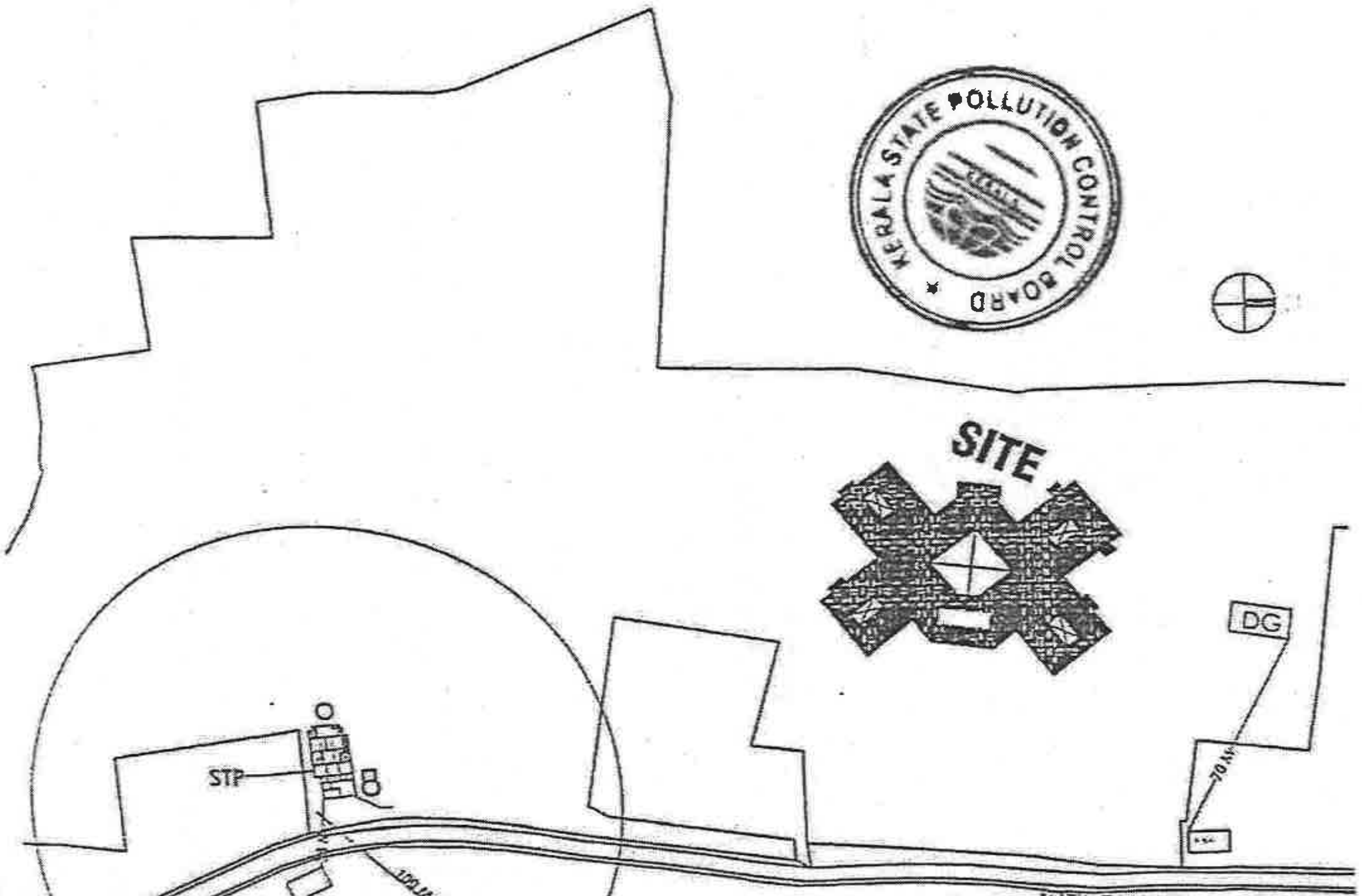
2. For verifying this document please go to krocmms.nic.in and search using date of issue/name of the unit/Application Number in "Consent Granted Applications" link in the home page of the Board's Online Consent Management and Monitoring System.

COUNTERSIGNED BY .

SREEKALA S Digitally signed by SREEKALA S Date: 2019.09.07 15:18:24 +05'30'

MEMBER SECRETARY

KERALA STATE POLLUTION CONTROL BOARD



- ROAD -

OUTLET LOCATION PLAN OF
M/S MAR SLEEVA MEDICITY
CHERPUNKAL, PALAI,
KOTTAYAM

KERALA STATE POLLUTION CONTROL BOARD KOTTAYAM
ENVIRONMENTAL ENGINEER

Client: Mar Sleeva Medicity

Title: Site Plan

Site details

Village	Pulivannoor
Taluk	Meenachil
District	Kottayam
Ward No.	I
Panchayath	Kozhuvanal

LEGEND

SL NO	DESCRIPTION	SIZE	QTY
1	SCREEN CHAMBER FOR LAB EFFLUENT	0.80 x 0.60 x 0.70	
2	SCREEN CHAMBER FOR LAUNDRY EFFLUENT	1.50 x 0.80 x 0.65	
3	SCREEN CHAMBER FOR SEWAGE	1.50 x 0.80 x 0.65	
4	SCREEN CHAMBER FOR SULLAGE	1.50 x 0.80 x 0.65	
5	GRIT CUM OIL SEPARATOR FOR SULLAGE	4.00 x 1.50 x 1.35 + 0.65 fb	
6	COLLECTION TANK FOR LAB	2.50 x 1.30 x 2.50 + 0.40 fb	
7	COLLECTION TANK FOR LAUNDRY	23m² x 2.50 + 1.10 fb	
8	FLOCCULATION TANK FOR LAUNDRY	1.20 x 1.20 x 1.50 + 0.30 fb	
9	PRIMARY SETTLING TANK FOR LAUNDRY	[illegible]	
10	PRIMARY SETTLING TANK FOR SULLAGE	3.00 x 3.00 x [illegible]	
11	EQUALISATION TANK	100m² x 3.50 + 0.30 fb	
12	ANAEROBIC TANK	4.00 x 4.00 x 4.50	2
13	DENITRIFICATION TANK	4.00 x 4.00 x 4.00 + 0.50 fb	
14	AERATION TANK (SPLIT INTO TWO)	4.00 x 2.00 x 4.00 + 0.50 fb	2
15	FLOCCULATION TANK	2.00 x 2.00 x 1.80 + 0.60 fb	
16	CLARIFIER	6.00 DIA X 2.50 SWD	
17	FILTER FEED TANK	5.20 x 2.80 x 2.50 + 0.30 fb	
18	UF FEED TANK	2.60 x 2.50 x 2.50 + 0.30 fb	
19	TREATED WATER TANK	32m² x 3.50	
20	SLUDGE DIGESTER	6.00m dia x 3.50 SWD	
	PLANT ROOM	100m² (Above Tanks 11 & 10)	

Scale : NTS

Rev No.	Date		Name	
Rev 00	20.06.19	Drawn	LG	
		Appd :	MN	

Green Method Engineering(P)Ltd. GME

An ISO 9001:2015, 14001:2015 certified company

Annexure - C

FILE NO : PCB/EKM/DO-1/OA-116/19
Date of issue : 04/03/2020

KERALA STATE POLLUTION CONTROL BOARD

CONSENT TO

OPERATE/AUTHORISATION/REGISTRATION

ISSUED UNDER

The Water (Prevention & Control of Pollution) Act, 1974
The Air (Prevention & Control of Pollution) Act, 1981

and

The Environment (Protection) Act, 1986

As per Application No. :12774886
Dated:14-02-2020

TO

M/s GREEN WORMS ECO SOLUTIONS LLP
GREEN WORMS ECO SOLUTIONS LLP
7/537A,NEAR KNM MES
SHCOOL,PUKKATTUMUGALYETHEEMKHANA ROAD,EDATHALA P O,ALUVA 683561

Consent No. :G19ERRCTON98204
Valid Upto :01/06/2025

1. GENERAL

. This integrated consent is granted subject to the power of the Board to withdraw consent, review and make ariation in or revoke all or any of the conditions as the Board deems fit.

1	**VALIDITY**	01/06/2025
2	Name and Address of the establishment	GREEN WORMS ECO SOLUTIONS LLP 7/537A,NEAR KNM MES SHCOOL,PUKKATTUMUGAL-YETHEEMKHANA ROAD,EDATHALA P O,ALUVA 683561
3	Communication	Telephone :91-8907780555 Fax :- E-mail:infothajudeen@gmail.com
4	Occupier Details	MOHAMMED JAMSHEER CHERUSHOLA HOUSE, EDIVANNA P O,NILAMBUR, MALAPPURAM
5	Local Body	EDATHALA
6	Survey Number	251/2
7	Village	ALUVA EAST
8	Taluk	ALUVA
9	District	ERNAKULAM I
10	Capital Investment(Rs in Lakhs)	Rs.94.20 LAKHS
11	Scale	Small
12	Category	GREEN
13	Annual fee(Rs) Total Fee remitted(Rs)	Rs.15000.00 Rs.15000.00
14	RAW MATERIAL	PRODUCTS
	DRY WASTE @10000 Kilogram	RECOVERED SORTED MATERIALS: PLASTIC PAPER AND SCRAP PHARMACEUTICAL WASTE E-WASTE TOTAL @10000 Kilogram
15	Total Power Required (HP)	20 HP

2. CONDITIONS AS PER

The Water(Prevention and Control of Pollution)Act, 1974

In case of generation of trade effluent from the industry, effluent treatment system consisting of treatment units having adequate capacity established as per the Integrated Consent to Establish issued shall be operational at all times during which the industry is functional. Additional facilities required, if any, to achieve the standards laid down by the Board u/s 17(1) (g) of the Water Act shall also be made along with.

2.2 Water consumption: -

2.3 Effluent generation: NA

2.4 The characteristics of effluent after treatment shall confirm to the following tolerance limits:

SI.NO.	Characteristics	Unit	Tolerance Limit	
			Sewage	Trade Effluent

2.5 Mode of disposal of treated effluent: NA

3. CONDITIONS AS PER
The Air(Prevention and Control of Pollution)Act, 1981

3.1 Adequate air pollution control measures shall be operational at all times during the functioning of the industry. Additional facilities required, if any, to achieve the standards laid down by the Board shall also be made along with.

Stack No.	Sources of Emission	Emission Rate(Nm3/Hr)	Stack Height above		Control Equipment
			Ground Level	Roof Level	

3.2 Emission characteristics shall not exceed the following:

SI.No.	Parameter	Limiting Standards (mg/Nm3)

4. CONDITIONS AS PER
The Environment (Protection) Act, 1986.

4.1 The operation of the industry shall be strictly in compliance with the provisions of the Noise Pollution (Regulation and Control) Rules 2000.

4.2 Used lead acid batteries shall be disposed of as per the Batteries (Management and Handling) Rules, 2001

4.3 Hazardous waste generated, if any, shall be handled as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

4.3.1 Activities for which Authorisation is granted

Collection		**transport**	
Reception		**Storage**	
Treatment		**Reprocessing/Disposal**	

4.3.2 Type, quantity and mode of storage/collection/disposal of hazardous wastes shall be as follows:

.No.	Hazardous Waste	Schedule Category	Quantity Tonne/year

Mode of	
Storage	Disposal

4.4 E-waste shall be disposed off safely as per the E-Waste (Management)Rules, 2016.

5. SPECIFIC CONDITIONS

5.2 For renewal of the consent in case of continuance of discharge/operation of the industry, application in the prescribed form shall be submitted through the web portal of the Board for Online Consent Management & Monitoring System 2 months prior to the date of expiry. Late application will be accepted only with fine.

5.3 This consent is granted subject to the power of the Board to review and make variation in or revoke any of the conditions as the Board deems fit as per the relevant Acts/Rules.

5.4 The applicant shall comply with the instructions that the Board may issue from time to time regarding prevention and control of air, water, land and sound pollution

5.5 Arrangements for collection, segregation, storage, handling and disposal of solid Waste including garbage shall be provided and maintained properly.

5.6 Energy and water conservation measures shall be adopted as far as possible.

5.7 Renewable sources of energy such as solar energy shall be utilized for lighting and heating wherever possible

5.8 There shall not be any fugitive emission from the premises.

5.9 Good housekeeping shall be maintained in and around the plant.

5.10 All operations likely to produce dust or noise shall be carried out with appropriate enclosure.

5.11 The consentee shall put up a sign board of size 6x4 ft. near the main entrance of the plant to display the name of the unit and important consent conditions

5.12 No change or alteration of the industrial plant is to be made without the prior written permission of the Board. Any change in the particulars furnished and/or in the identity of the occupier/authorised agent is to be intimated to the Board forthwith.

5.13. There shall be no fugitive emission from the premises.

5.14. Solid waste shall be disposed off scientifically.

5.15. Raw materials and products shall be handled with proper care to prevent spreading of dust.

5.16. There shall not be any trade effluent from the unit.

A M HAREES

Digitally signed by A M HAREES
Date: 2020.03.04 18:58:54 +05'30'

DATE :04/03/2020

SIGNATURE & SEAL OF ISSUING AUTHORITY
ASSISTANT ENVIRONMENTAL ENGINEER

To

MOHAMMED JAMSHEER
CHERUSHOLA HOUSE,
EDIVANNA P O,NILAMBUR,
MALAPPURAM

1. This digitally signed document is legally valid as per the Information Technology Act 2000

2. For verifying this document please go to krocmms.nic.in and search using date of issue/name of the unit/Application Number in "Consent Granted Applications" link in the home page of the Board's Online Consent Management and Monitoring System.

Annexure - D

COCHIN TEST HOUSE

ANALYTICAL SERVICES & TESTING LABORATORY

V / 78, Kollanpady, Murungeliparambu Road, Irumpanam P.O., Kochi - 682 309
Mob.: 9446332556, 9846551014, 9387381780. Tel. : 0484 - 2782672
E-mail: cochintesthouse1@gmail.com, info@cochintesthouse.in. Web : www.cochintesthouse.in

TC - 7720

Laboratory Approved by Kerala State Pollution Control Board ('A' Grade)

STACK EMISSION MONITORING REPORT

Report No : CTH/LR/23/04/767	Issue Date : April 19, 2023
Unique Lab Report Number	***TC772023000000767F***
Name & Address of the customer	**M/s. Mar Sleeva Medicity Palai, Cherupumkal, Kezhuvankulam P. O., Kottayam Dist., Kerala – 686 584**
Monitored By	Cochin Test House
Lab Identification No.	23/04/767
Identification of Sample	**Stack Emission from 750 KVA**
Monitoring Date	11.04.2023
Dates of analysis	12.04.2023 – 18.04.2023

Sl.No.	Parameters	Unit	Method	Result
1	Particulate Matter	mg/Nm^3	IS : 11255 [Part.01]	47.6
2	Volume of Emission	Nm^3/hr	IS : 11255 [Part.03]	373
3	Sulphur Dioxide [SO_2]	mg/Nm^3	IS : 11255 [Part.02]	14.1
4	Nitrogen Dioxide [NO_x]	mg/Nm^3	IS : 11255 [Part.07]	39.8

End of report.

Verified By

COCHIN TEST HOUSE Kochi

Henry Michel
Authorised Signatory
Chemical
COCHIN TEST HOUSE

ABSTRACT

Annexure (E)

MAR SLEEVA™ medicity palai
A Temple of Health

WATER CONSUMPTION MONTHLY 2022-2023

Sl No.	Date	Raw Water (KL)	STP Treated Water (KL)
1	October	10864	5485
2	November	10520	5815
3	December	10831	5223
4	January	12016	5721
5	February	11547	4408
6	March	14150	3973
Total (Kl)		**69928**	**30625**

Details attached as Annexure 'E' Below.

Annexure – E.

MAR SLEEVA™ medicity palai
A Temple of Health

WATER CONSUMPTION DAILY - OCTOBER 2022

Sl No.	Date	Raw Water (KL)	STP Treated Water (KL)	Remarks
1	01-10-2022	341	208	
2	02-10-2022	323	152	
3	03-10-2022	313	213	
4	04-10-2022	348	185	
5	05-10-2022	321	142	
6	06-10-2022	363	150	
7	07-10-2022	327	137	
8	08-10-2022	352	200	
9	09-10-2022	340	64	
10	10-10-2022	406	150	
11	11-10-2022	367	210	
12	12-10-2022	410	213	
13	13-10-2022	404	156	
14	14-10-2022	376	241	
15	15-10-2022	342	200	
16	16-10-2022	293	110	
17	17-10-2022	344	202	
18	18-10-2022	352	163	
19	19-10-2022	375	185	
20	20-10-2022	353	173	
21	21-10-2022	339	118	
22	22-10-2022	335	193	
23	23-10-2022	253	183	
24	24-10-2022	351	220	
25	25-10-2022	379	177	
26	26-10-2022	395	139	
27	27-10-2022	375	212	
28	28-10-2022	401	165	
29	29-10-2022	375	240	
30	30-10-2022	309	208	
31	31-10-2022	302	176	
Total (KL)		10864	5485	October

MAR SLEEVA™ medicity palai
A Temple of Health

WATER CONSUMPTION DAILY - NOVEMBER 2022

Sl No.	Date	Raw Water (KL)	STP Treated Water (KL)	Remarks
1	01-11-2022	338	172	
2	02-11-2022	335	216	
3	03-11-2022	350	203	
4	04-11-2022	366	196	
5	05-11-2022	264	253	
6	06-11-2022	349	229	
7	07-11-2022	361	209	
8	08-11-2022	343	200	
9	09-11-2022	357	233	
10	10-11-2022	355	218	
11	11-11-2022	332	210	
12	12-11-2022	372	186	
13	13-11-2022	374	208	
14	14-11-2022	353	142	
15	15-11-2022	374	162	
16	16-11-2022	342	205	
17	17-11-2022	365	203	
18	18-11-2022	366	209	
19	19-11-2022	338	199	
20	20-11-2022	367	200	
21	21-11-2022	394	127	
22	22-11-2022	375	200	
23	23-11-2022	409	174	
24	24-11-2022	381	211	
25	25-11-2022	367	172	
26	26-11-2022	369	148	
27	27-11-2022	325	143	
28	28-11-2022	270	176	
29	29-11-2022	362	232	
30	30-11-2022	267	179	
Total (KL)		10520	5815	November

MAR SLEEVA™ medicity palai
A Temple of Health

WATER CONSUMPTION DAILY - DECEMBER 2022

Sl No.	Date	Raw Water (KL)	STP Treated Water (KL)	Remarks
1	01-12-2022	465	133	
2	02-12-2022	375	130	
3	03-12-2022	303	158	
4	04-12-2022	321	114	
5	05-12-2022	381	132	
6	06-12-2022	353	193	
7	07-12-2022	327	70	
8	08-12-2022	350	210	
9	09-12-2022	355	153	
10	10-12-2022	352	183	
11	11-12-2022	263	138	
12	12-12-2022	429	238	
13	13-12-2022	409	202	
14	14-12-2022	327	180	
15	15-12-2022	378	183	
16	16-12-2022	342	207	
17	17-12-2022	407	212	
18	18-12-2022	371	200	
19	19-12-2022	348	148	
20	20-12-2022	463	179	
21	21-12-2022	359	173	
22	22-12-2022	286	111	
23	23-12-2022	345	118	
24	24-12-2022	322	115	
25	25-12-2022	233	125	
26	26-12-2022	331	144	
27	27-12-2022	335	222	
28	28-12-2022	385	202	
29	29-12-2022	282	226	
30	30-12-2022	296	208	
31	31-12-2022	338	216	
32	01-01-2023			
Total (KL)		10831	5223	December

MAR SLEEVA™ medicity palai
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WATER CONSUMPTION DAILY - JANUARY 2023

Sl No.	Date	Raw Water (KL)	STP Treated Water (KL)	Remarks
1	01-01-2023	442	161	
2	02-01-2023	318	194	
3	03-01-2023	364	179	
4	04-01-2023	335	160	
5	05-01-2023	359	161	
6	06-01-2023	367	161	
7	07-01-2023	371	218	
8	08-01-2023	546	183	
9	09-01-2023	364	234	
10	10-01-2023	390	220	
11	11-01-2023	435	197	
12	12-01-2023	420	222	
13	13-01-2023	396	209	
14	14-01-2023	491	187	
15	15-01-2023	371	218	
16	16-01-2023	404	182	
17	17-01-2023	405	209	
18	18-01-2023	500	188	
19	19-01-2023	364	135	
20	20-01-2023	367	166	
21	21-01-2023	357	176	
22	22-01-2023	342	202	
23	23-01-2023	344	213	
24	24-01-2023	358	211	
25	25-01-2023	365	149	
26	26-01-2023	373	68	
27	27-01-2023	414	83	
28	28-01-2023	362	205	
29	29-01-2023	298	269	
30	30-01-2023	418	215	
31	31-01-2023	376	146	
Total (KL)		12016	5721	January 23

MAR SLEEVA™ medicity palai
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WATER CONSUMPTION DAILY - FEBRUARY

Sl No.	Date	Raw Water (KL)	STP Treated Water (KL)	Remarks
1	01-02-2023	422	154	
2	02-02-2023	394	212	
3	03-02-2023	490	178	
4	04-02-2023	360	100	
5	05-02-2023	392	91	
6	06-02-2023	390	165	
7	07-02-2023	384	185	
8	08-02-2023	463	217	
9	09-02-2023	430	162	
10	10-02-2023	350	217	
11	11-02-2023	370	161	
12	12-02-2023	402	100	
13	13-02-2023	322	161	
14	14-02-2023	481	191	
15	15-02-2023	347	50	
16	16-02-2023	450	103	
17	17-02-2023	349	83	
18	18-02-2023	322	198	
19	19-02-2023	487	109	
20	20-02-2023	479	130	
21	21-02-2023	366	202	
22	22-02-2023	498	157	
23	23-02-2023	455	165	
24	24-02-2023	457	252	
25	25-02-2023	467	109	
26	26-02-2023	486	163	
27	27-02-2023	382	173	
28	28-02-2023	352	220	
29	01-03-2023			
Total (KL)		**11547**	**4408**	

February-23

ANNEXURE-E

MAR SLEEVA™
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WATER CONSUMPTION DAILY - MARCH 2023

Sl No.	Date	Raw Water (KL)	STP Treated Water (KL)	Remarks
1	01-03-2023	401	180	
2	02-03-2023	381	177	
3	03-03-2023	594	220	
4	04-03-2023	519	120	
5	05-03-2023	490	140	
6	06-03-2023	360	70	
7	07-03-2023	451	109	
8	08-03-2023	390	83	
9	09-03-2023	510	140	
10	10-03-2023	409	97	
11	11-03-2023	403	59	
12	12-03-2023	492	66	
13	13-03-2023	472	69	
14	14-03-2023	393	69	
15	15-03-2023	443	92	
16	16-03-2023	400	88	
17	17-03-2023	493	68	
18	18-03-2023	560	210	
19	19-03-2023	583	200	
20	20-03-2023	612	213	
21	21-03-2023	395	218	
22	22-03-2023	580	218	
23	23-03-2023	512	213	
24	24-03-2023	470	30	
25	25-03-2023	430	114	
26	26-03-2023	438	162	
27	27-03-2023	341	143	
28	28-03-2023	352	137	
29	29-03-2023	416	101	
30	30-03-2023	481	71	
31	31-03-2023	379	96	
32	01-04-2023			
Total (KL)		14150	3973	

March 23

Annexure – F.

COCHIN TEST HOUSE

ANALYTICAL SERVICES & TESTING LABORATORY

V / 78, Kollanpady, Murungeliparambu Road, Irumpanam P.O., Kochi - 682 309
Mob.: 9446332556, 9846551014, 9387381780. Tel. : 0484 - 2782672
E-mail: cochintesthouse1@gmail.com, info@cochintesthouse.in. Web : www.cochintesthouse.in

TC - 7720

Laboratory Approved by Kerala State Pollution Control Board ('A' Grade)

TEST REPORT

Report No : CTH/LR/23/04/743 Issue Date: April 14, 2023

Unique Lab Report Number	:	***TC772023000000743F***
Name and Address of customer	:	**M/s. Mar SleevaMedicityPalai, Cherupumkal, Kezhuvankulam P. O., Kottayam Dist., Kerala – 686 584**
Sample Drawn By	:	Cochin Test House
Condition of the Sample	:	Acceptable
Particulars of the sample	:	**Drinking Water Sample**
Date of Sampling	:	10.04.2023
Location of Sampling	:	TAP
Sampling Method	:	IS : 3025 [Pt.01] & CTH/MB/SOP/702
Sample Quantity	:	1.25 Litre
Sample code	:	23/04/743
Date of receipt of sample	:	10.04.2023
Dates of Analysis	:	10.04.2023 – 13.04.2023
Description of the sample by the customer	:	**DRINKING WATER**

Sl.No.	Parameters	Unit	Method	Result	Desirable Limit as per IS 10500:2012
1	Colour	Colour units	IS : 3025 [Pt.04]	2	5 [Max]
2	Odour	---	IS : 3025 [Pt.05]	Agreeable	Agreeable
3	Turbidity	NTU	IS : 3025 [Pt.10]	0.9	1.0 [Max]
4	pH@25°C	---	IS : 3025 [Pt.11]	6.54	6.5 – 8.5
5	Total Hardness as $CaCO_3$	mg/l	IS : 3025 [Pt.21]	32.5	200 [Max]
6	Iron as Fe	mg/l	IS : 3025 [Pt.53]	BDL[MDL-0.08]	0.3 [Max]
7	Chloride as Cl	mg/l	IS : 3025 [Pt.32]	14.36	250 [Max]
8	Fluoride as F	mg/l	APHA 23rd Ed.4500 F D	BDL[MDL-0.1]	1.0 [Max]
9	Total Dissolved Solids	mg/l	IS : 3025 [Pt.16]	83	500 [Max]
10	Sulphate as So_4	mg/l	APHA 23rd Ed.4500 SO_4 E	8.63	200 [Max]
11	Alkalinity as $CaCO_3$	mg/l	IS : 3025 [Pt.23]	45	200 [Max]
12	Nitrate as NO_3	mg/l	IS : 3025 [Pt.34]	1.63	45 [Max]
13	Residual Chlorine	mg/l	IS : 3025 [Pt.26]	BDL[MDL-0.2]	0.2 [Min]

Microbiology Parameters

Sl.No.	Parameters	Unit	Method	Result	Desirable Limit as per IS 10500:2012
1	Coliforms	/ 100 ml	IS : 15185 – 2016	Absent	Shall not be detectable in any 100 ml sample
2	*E.coli*	/ 100 ml	IS : 15185 – 2016	Absent	

BDL – Below Detection Limit, MDL – Minimum Detection Limit. End of report.

Verified By

Anoop. A.
Authorised Signatory
Microbiology
COCHIN TEST HOUSE

COCHIN TEST HOUSE Kochi

Henry Alichel
Authorised Signatory
Chemical
COCHIN TEST HOUSE

Annexure – 9

COCHIN TEST HOUSE

ANALYTICAL SERVICES & TESTING LABORATORY

V / 78, Kollanpady, Murungeliparambu Road, Irumpanam P.O., Kochi - 682 309
Mob.: 9446332556, 9846551014, 9387381780. Tel. : 0484 - 2782672
E-mail: cochintesthouse1@gmail.com, info@cochintesthouse.in. Web : www.cochintesthouse.in

TC - 7720

Laboratory Approved by Kerala State Pollution Control Board ('A' Grade)

AMBIENT AIR QUALITY MONITORING REPORT

Report No : CTH/LR/23/04/765		Issue Date : April 19, 2023	
Unique Lab Report Number		***TC772023000000765F***	
Name & Address of the customer		**M/s. Mar Sleeva Medicity Palai, Cherupumkal, Kezhuvankulam P. O., Kottayam Dist., Kerala – 686 584**	
Sampled By	Cochin Test House	Lab Identification No	23/04/765
Source of monitoring	Ambient Air Quality Monitoring	Environmental Condition	Sunny Day
Instrument used for Monitoring	Fine Particulate Sampler [CTH/FPS/01] & Resparable Dust Sampler [CTH/RDS/01		
Mfr. Type/Model	Envirotech, APM 550 & APM 460	Serial No.	36-DTC-2010 & 1810 DTF 2013
Date of Monitoring	10.04.2023 – 11.04.2023	Dates of analysis	12.04.2023 – 18.04.2023

Sl.No.	Parameters	Unit	Method	Results			Limit by CPCB
				Laundry	***Presbytery***	***Main Entrance***	
1	Particulate Matter$_{10}$ [PM_{10}]	µg/m^3	IS : 5182 [Pt.23]	38.47	39.55	37.57	100
2	Particulate Matter$_{2.5}$ [$PM_{2.5}$]	µg/m^3	CTH/CH/SOP/462	14.21	13.0	12.0	60
3	Sulphur Dioxide [SO_2]	µg/m^3	IS : 5182 [Pt.02]	BDL[MDL-4.0]	BDL[MDL-4.0]	BDL[MDL-4.0]	80
4	Nitrogen Dioxide [NO_X]	µg/m^3	IS : 5182 [Pt.06]	BDL[MDL-6.0]	BDL[MDL-6.0]	BDL[MDL-6.0]	80

BDL – Below Detection Limit; MDL – Minimum Detection Limit.

End of report.

COCHIN TEST HOUSE Kochi

Verified By

Henry Michel
Authorised Signatory
Chemical
COCHIN TEST HOUSE

Annexure – H

COCHIN TEST HOUSE

ANALYTICAL SERVICES & TESTING LABORATORY

V / 78, Kollanpady, Murungeliparambu Road, Irumpanam P.O., Kochi - 682 309
Mob.: 9446332556, 9846551014, 9387381780. Tel. : 0484 - 2782672
E-mail: cochintesthouse1@gmail.com, info@cochintesthouse.in. Web : www.cochintesthouse.in

TC - 7720

Laboratory Approved by Kerala State Pollution Control Board ('A' Grade)

NOISE LEVEL MONITORING REPORT

Report No : CTH/LR/23/04/766	Issue Date : April 19, 2023
Unique Lab Report Number	***TC772023000000766F***
Name & Address of the customer	**M/s. Mar Sleeva Medicity Palai, Cherupumkal, Kezhuvankulam P. O., Kottayam Dist., Kerala – 686 584**
Monitored By	Cochin Test House
Lab Identification No.	23/04/766
Identification of Sample	**Ambient Noise Level Measurement**
Method of Measurement	CTH/CH/SOP/467
Monitoring Dates	10.04.2023 – 11.04.2023

Sound level Values Reported in dB (A) Leq as per the details given below

Sl. No.	Monitoring Location Details	Results				Limit by CPCB
1	Ambient Sound level measured at a distance of 1.0 meter outside boundary	East Side	West Side	South Side	North Side	
	Day Time	51.5	52.9	52.2	49.0	55
	Night Time	43.0	42.1	39.8	40.9	45

End of report.

Verified By

COCHIN TEST HOUSE Kochi

Authorised Signatory
Chemical
COCHIN TEST HOUSE

Annexure — (I)

PALA DIOCESAN MEDICAL EDUCATION TRUST

Reg. No. 28/IV/05
BISHOP'S HOUSE, PALAI
Pin - 686 575, KERALA
Tel. 04822-202000, 216350
E-mail address : aramanapala@gmail.com

24-05-2022

The Secretary,
Kozhuvanal Grama Panchayat,
Kozhuvanal Panchayath Office,
Cherpunkal - Kozhuvanal Road,
Kozhuvanal, Kottayam,
Kerala-686573

Sub:- Post Environmental Clearance – Proposed expansion of existing Hospital Complex project at Sy. Nos. 86/5-1, 86/4, 86/7, 86/3-2, 86/3, 86/3-1, 87/7, 87/4, 85/1-1, 85/4, 87/5-1-1, 100/6, 85/6, 87/2, 88/5, 87/6, 85/3, 86/6-1, 88/6-2, 86/5-2, 86/1, 88/6, 88/4, 87/1, 86/6, 88/11-1, 87/3-1, 100/8, 100/7, 98/2, 100/5, Puliyannoor Village, Kozhuvanal Panchayat, Meenachil Taluk, Kottayam District, Kerala – Compliance to the Conditions of E.C. – Reg.

Respected Sir,

1. This has reference to the Environmental Clearance issued to the construction as part of development of proposed expansion of existing Hospital Complex project at Sy. Nos. 86/5-1, 86/4, 86/7, 86/3-2, 86/3, 86/3-1, 87/7, 87/4, 85/1-1, 85/4, 87/5-1-1, 100/6, 85/6, 87/2, 88/5, 87/6, 85/3, 86/6-1, 88/6-2, 86/5-2, 86/1, 88/6, 88/4, 87/1, 86/6, 88/11-1, 87/3-1, 100/8, 100/7, 98/2, 100/5, Puliyannoor Village, Kozhuvanal Panchayat, Meenachil Taluk, Kottayam District, Kerala issued by Ministry of Environment, Forest, and Climate Change (Impact Assessment Division), Govt. of India vide EC Identification No. EC22A038KL132864 & File No. 21-25/2022-IA-III dated 20.05.2022.

2. We hereby submit a self attested copy of the Environmental Clearance Order vide EC Identification No. EC22A038KL132864 & File No. 21-25/2022-IA-III dated 20.05.2022. This is in compliance to the condition of the Environmental Clearance Order.

Kindly acknowledge the receipt of the same.

Thanking you,
Yours respectfully,
For M/s Palai Diocesan Medical Education Trust
For Pala Diocesan Medical Education Trust

Kaniyodickal

Msgr. Dr. Joseph Kaniyodickal
(President) President

Encl: As above

OFFICE OF THE KOZHUVANAL GRAMA PANCHAYAT
KOTTAYAM DIST.
PIN: 686 573
KOZHUVANAL P.O.

Received application
SECRETARY
Kozhuvanal Grama Panchayat
PA
Sr. clerk
24/05/2022