

COMPLIANCE REPORT OF THE MEDICAL COLLEGE PROJECT

PART A - SPECIFIC CONDITIONS

I. Construction Phase

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

Compliance Measure

The validity of “Integrate Consent to Operate PCB/HO/WND/ICO-R/01/2011 from Kerala State Pollution Control Board was renewed with consent No: KSPCB/WA/ICO/10031869/2023 and the validity is extended till 30-06-2028. Copy is attached

- ii. The total height of the building shall not be more than 60 m, due to non availability of adequate fire fighting facilities in the area.

Compliance Measure

Buildings are placed with a height less than 60 m. Details of Individual buildings with its height are provided for your reference.

Building approval status :-11-11-2024

Sl No	Building Name	Category Name	Total Area Sqmtr	Total Height	Name of Floor	Number of Floor
1	HOSPITAL BLOCK	HOSPITAL	57,032.28	24.10	B2+B1+G+6	9
2	ACADEMIC BLOCK	EDUCATIONAL	17,198.64	18.57	B1+G+4	6
3	LADIES HOSTEL 1	RESIDENTIAL	6,933.15	21.46	B4+B3+B2+B1+G+3	8
4	LADIES HOSTEL 2	RESIDENTIAL	13,239.36	42.25	B3+B2+B1+G+9	12
5	MENS HOSTEL	RESIDENTIAL	8,842.60	24.39	B4+B3+B2+B1+G+3	8
6	RESIDENTIAL BLOCK 1	RESIDENTIAL	4,351.29	21.17	G+5	6
7	RESIDENTIAL 2BHK	RESIDENTIAL	4,610.52	34.00	B4+B3+B2+B1+G+4	9
8	STUDIO CUM 2BHK	RESIDENTIAL	8447.15	28.95	G+8	9
9	PHARMACY COLLEGE	EDUCATIONAL	3968.86	25.5	G+6	7
10	NURSING COLLEGE	EDUCATIONAL	3600.48	25.5	G+6	7
11	LAUNDRY & DAY CARE CENTRE	SERVICE BUILDING	105.60	4.20	G	1
12	ENGINEERING STORE	SERVICE BUILDING	256.65	3.80	G	1
13	GENERAL STORE	SERVICE BUILDING	113.85	3.80	G	1
14	SECURITY ROOM -1	SERVICE BUILDING	6.50	3.80	G	1
15	SECURITY ROOM -2	SERVICE BUILDING	8.12	3.80	G	1
16	EQUIPMENT ROOM FOR MOBILE TOWER	SERVICE BUILDING	10.35	3.20	G	1
17	TRANFORMER ROOM (RESI)	SERVICE BUILDING	92.30	3.25	G	1
18	TRANFORMER ROOM (ACADEMY)	SERVICE BUILDING	46.20	3.80	G	1

19	INCINERATOR	SERVICE BUILDING	93.60	4.80	G	1
20	S.T.P MACHINE ROOM	SERVICE BUILDING	293.82	6.00	G+1	2
21	WTP (WATER TREATMENT PLANT	SERVICE BUILDING	312.84	4.20	G	1
22	DIESEL GENERATOR YARD	SERVICE BUILDING	203.58	4.50	G	1

- iii.** Proposals for Storm Water Drainage shall be worked out after analysing the contour levels of the site and surrounding area and carrying capacity of storm water drains and their outfall.

Compliance Measure

Proposals for Storm Water Drainage have been worked out after detailed study conducted by Dr.P.K.Thampi, Senior Hydrogeology Consultant which was submitted along with our compliance report dated 14th May'2012. The proposal suggested by Dr.P.K.Thampi has already been carried out.

- iv.** Bio-Medical waste shall be handled and disposed according to Bio-Medical waste management rules. MOU with the authorized agency for disposal of Bio-Medical waste shall be submitted prior to the commencement of operation.

Compliance Measure

Bio-Medical waste are being handled and disposed by us according to Bio-Medical waste management rules - 2016. MOU with the authorized agency (**IMAGE**) for disposal of Bio-Medical waste is attached herewith for ready reference.

- v.** Project proponent shall provide suitable water meters for usage of recycled water and shall maintain the record.

Compliance Measure

An Ultra filtration plant with UV of capacity 600KLD with water meter has been installed in the campus to treat the waste water and utilising the product water for toilet flushing, lawn watering, construction purpose, car washing, etc. The water meter reading outlet water is recorded on daily basis.

- vi.** Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical healthcare, crèche etc. The housing may in the form of temporary structures to be removed after the completion of the project.

Compliance Measure

Construction phase is over now and no labourers retained in campus

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

Compliance Measure

Construction phase is over now.

- viii.** All the top soil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

Compliance Measure

All the top soil excavated was stored and was used in the development of the 1.5 Acre Nursery.

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

Compliance Measure

No disposal of Muck is carried out from the site to any other location.

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

Compliance Measure

Tests already conducted and results were attached along with the Compliance Report submitted on 14th May 2012.

- xi.** Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate water courses and the dump sites for such materials must be secured so that they should not leach in to the ground water.

Compliance Measure

Construction phase is over now

- xii.** Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals from Kerala State Pollution Control Board

Compliance Measure

No hazardous waste being generated at site. In future proper care would be taken to ensure safe disposal of any hazardous material generated from site.

- xiii.** The Diesel Generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for Air and Noise Emission standards.

Compliance Measure

Construction phase is over now.

- xiv.** 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.

Compliance Measure

Whenever required, Diesel is being purchased from a nearby Fuel Station which is directly poured in to the DG Tanks. In future, if huge quantities of Diesel are required, underground tanks would be provided and clearance from Chief Controller of Explosives will be taken.

- xv.** 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 and should be operated only during non-peak hours.

Compliance Measure

Construction phase is over now.

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

Compliance Measure

Construction phase is over now.

- xvii.** Fly ash should be used as building material in the construction as per provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within 100 km of thermal power stations).

Compliance Measure

Not applicable. No Thermal Power Station within 100 km radius.

- xviii.** Ready mix concrete must be used in building construction.

Compliance Measure

Construction phase is over now.

Concrete Batching Plant available at Site to ensure Ready Mix Concrete for building construction.

- xix.** Storm water control and its reuse as per CGWB and BIS standards for various applications.

Compliance Measure

See Item No.iii (The same has been submitted in the compliance report dated 14th November'2012)

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

Compliance Measure

Construction phase is over now.

- xxi.** Permission to draw ground water shall be obtained from the competent Authority prior to the construction / operation of the project.

Compliance Measure

Currently water from the Storm Water Harvesting Pond is being used for the project. See Item No.iii

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

Compliance Measure

Dual Plumbing Line for separation of grey and black water available.

- xxiii.** 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.

Compliance Measure

Pressure reducing devices are being used to make it low flow.

- xxiv.** Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with a special reflective coating on windows.

Compliance Measure

As the site has a salubrious cool climate and lots of shade trees only minimal air-conditioning is provided and also the glazing area provided is far below 40%.

- xxv.** The roof should meet the prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.

Compliance Measure

Complied.

- xxvi.** Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.

Compliance Measure

Complied

- xxvii.** 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.

Compliance Measure

Structural Stability Certificate available from Structural Engineer and NOC granted by Commandant General, Fire & Rescue Services.

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

Compliance Measure

Construction phase is over now.

Proper care is being taken to ensure that the surroundings are not disturbed.

- xxix.** 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 environmental clearance.

Compliance Measure

Construction started only after obtaining an Environmental Clearance from MOEF

xxx. Connectivity to the National Highway shall be redesigned and submitted to NHAI/PWD and necessary approval shall be obtained prior construction at site.

Compliance Measure

Complied

II. OPERATION PHASE

1. Installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard is to be submitted to the Ministry 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 by decentralised treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of Kerala State Pollution Control Board. Necessary measures should be made to mitigate odour problem from STP.

Compliance Measure

Complied

The campus is equipped with fully functional STP + UF plant of capacity 600KLD(Additional Expansion of 600 KLD STP + UF Plant works is in under progress) The major part of treated water is reused as mentioned earlier and the remaining portion is pumped the purpose made soak pit as approved by KSPCB. Please refer Annexure-II for the latest test result of treated water. The sludge emanating after the treatment sending to the Sludge drying yard the .dried sludge using as fertiliser. Also please refer the flow diagram of water treatment as Annexure-III. KSPCB has recognized the institution with best performer award in last 5 consecutive years.

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

Compliance Measure

Complied. The solid waste generated are being segregated at the source. Additional counter checks were being carried out by Housekeeping staff. Food wastes are used for Bio-Gas plant.

Other solid wastes are send to recycling through our scrap vendor.

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

Compliance Measure

Complied.

3 generators using in the site with acoustic enclosures to limit the noise. 100% backup has given in case of power failure. DG stack has raised as per the regulations of KSPCB. The fuel using is LSHSD.

4. 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.

Compliance Measure

Complied

The noise level is monitored frequently with the help of authorised laboratories by KSPCB. Please refer Annexure for latest results.

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

Compliance Measure

Complied

The entire campus is grown with natural species. The periphery of the plot is already covered with dense green belt of local species.

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

Compliance Measure

Complied

Compound wall not constructed in the campus, however adequate numbers of weeping holes provided in the soil nailing areas, please refer Annexure-IV for image.

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

Compliance Measure

Complied – Rain water harvesting measures implemented. No bore well inside campus

All the rain water gutters in the roof is discharging to the storm water stream and let flow more than 500 meters before reaching the reservoir to settle any suspended matters. A huge rain water reservoir set up in the campus which is the main source of drinking water supply for the whole year. Before pumping to the domestic water tanks the water is going through three stage filtration and finally taken

from UV outlets. Please refer Annexure-V for rain water harvesting system and routes established in campus.

8. The ground water level and its quality should be monitored regularly in consultation with central ground water authority

Compliance Measure

Complied

9. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalised and no public space should be utilised.

Compliance Measure

Complied

Adequate measures have been taken to avoid traffic congestion. The campus has an area of 50 acres and adequate parking spaces are available in campus without using any public space. The parking plan incorporated in Master plan shown in Annexure –VI.

10. A report on the energy conservation measures conforming to energy conservation norms finalised the bureau of energy efficiency should be prepared incorporating details about building materials and technology, R and U factors etc and submit to the ministry in 3 months time.

Compliance Measure

The project is already LEED silver certified.

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

Compliance Measure

LED / CFL's / TFL's installed. Collection and disposal guidelines are being strictly adhered. Solar Panels are being used for external yard and street lighting. Solar geysers are extensively using for hot water generation.

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

Compliance Measure

Complied. Proper processing of waste is ensured at STP to avoid odour issues.

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

Compliance Measure

Complied, the campus is so designed to ensure the free flow of natural air and light.

PART B - GENERAL CONDITIONS

- i. The Project Proponent shall also submit six monthly 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) to the respective regional office of MOEF, the respective zonal office of CPCB and the SECB.

Compliance Measure

Adhered

4. Officials from the regional office of MOEF, Bangalore who would be monitoring the Implementation of environmental safe guards should be given full cooperation, facilities and documents / data by the Project Proponents during their inspection. A complete set of all the documents submitted to MOEF should be forwarded to the CCF, regional office of MOEF, Bangalore.

Compliance Measure

Full cooperation would be provided. Data is being submitted regularly.

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

Compliance Measure

No change in the scope of the project till date.

6. The ministry 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 Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

Compliance Measure

Noted

7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest conservation act, 1980 and wildlife (protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

Compliance Measure

Noted & applicable approvals are in place.

8. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of pollution) Act 1981, the Environment (Protection) Act 1986, the Public Liability (Insurance) Act 1991 and EIA notification, 2006

Compliance Measure

Noted and complied.

9. The Project Proponent should advertise in at least 2 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 with the Kerala Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forest at <http://www.envfor.nic.in>. The advertisement should be made within the 10 days of receipt of clearance letter and a copy of the same should be forwarded to the regional office of this ministry at Bangalore.

Compliance Measure

Already complied by giving advertisements in The Hindu and Malayala Manorama (vernacular). Copies already forwarded to the Bangalore Office along with our Compliance Statement dated 14th May 2012.

10. Environmental Clearance is subject to final order of the honourable 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 the project.

Compliance Measure

Not applicable for this project.

11. A copy of the clearance letter shall be sent by the Proponent to concerned Panchayath, Zilla Parisad / Municipal Corporation, urban local body and the local NGO, if any from whom suggestions / representations, if any were received while professing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

Compliance Measure

Noted and complied.

12. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MOEF, the respective zonal office of CPCB and SPCB. The criteria pollutant levels mainly ; SPM, RSPM, SOT, NOX, (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company he public domain.

Compliance Measure

Noted and complied

13. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the Project Proponent to the concerned State Pollution Control Board as prescribed under the Environment (protection) Rules 1986, as amended subsequently, shall also be put from the website of the company along with the status of the compliance of EC conditions and shall also be sent to the respective regional offices of MOEF by e-mail.

Compliance Measure

Noted and will be complied