STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, BIHAR

Ref. No. 181 **Patna, dated: -** 7/9/15

From,

Prof. R.C. Sinha,
Chairman,
SEIAA, Bihar

To,

Mr. RabindraNarain Singh,
Principal Trustee,
RadhaBallabh Medical Foundation Trust
2M/106, Shanti Niketan, Bahadurpur Housing Colony,
PS-AgamKuan, Kankarbagh, Dist.-Patna, Bihar
Patna-800 026.

This has reference to your application submitted vide letter. dt 12th August 2015 in this regard seeking environmental clearance for proposed MEDICAL COLLEGE, in Golma, Saharsa under Block- Patarghat, Saharsa Municipal Corporation & District- Saharsa The proposal recommended by State Expert Appraisal Committee (SEAC), Bihar in meeting held on 23rdAugust, 2015. On the recommendation of SEAC, SEIAA in its meeting held on 31st August, 2015 accords Environmental Clearance with the following conditions. The salient features of the Project are as follows:-

The silent feature of project is given in table given below:-

Name of Project	MEDICAL COLLEGE
Project Proponent	RabindraNarain Singh, Principal Trustee
Project Developer	RadhaBallabh Medical Foundation Trust
Type of Project	Building & Construction Project
Category of the Project	8 (a) – B_2
project Location	The Project site is located in Golma, Saharsa under Block – Patarghat, Saharsa Municipal Corporation & District - Saharsa. Geo-coordinates :25°47'17.49"N & 86°44'19.76"E
Nearest Railway Station	MadhepuraRailway Station – 13.26 Km North East Sarsha Railway Station – 16.40 Km North West
Nearest Airport Nearest River	Patna International Airport – 168 Km South West River Kosi – 1.21 KmWest
Total Plot Area	1,08,463.15 m^2
Total Built-up	1,21,052.36 m^2

CHAIRMAN
STATE ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY
(SEIAA) BIHAR

Area	
Green-Belt Area	59,009.15 sq. m
Height of the Building	22m (maximum)
Building Block Details	

Description	No. of Blocks	No. of Floors
Hospital	1	G+4
Medical College	1	G+4
Auditorium	1	G+1
Nurses Hostel	1	G+3
Residents Doctor Hostel	1	G+3
Guest House	1	G+3
Interns Hostel (Male/Female)	2	G+3
Boys Hostel	1	G+6
Girls Hostel	1	G+6
Type-II	2	G+5
Type-III	2	G+5
Type-IV	2	G+5
Type-VII	2	G+1
Shopping Plaza (PRA Block)	1	G+3
Services Block	1	G+2
ESS	1	G+1
Guard Room	3	G
STP/ETP	1	UG
UG Tank	1	UG

No. of Floors	Floors in each Buildings:- 5 Nos.
Water requirement	1341 KLD
Source of Water	Bore well
Waste water generated	Municipal Solid Waste-2,050.37 kg/day Biomedical Waste-187.5 kg/day
Waste water treatment	All waste water generated will be treated in STP and reused for makeup water for toilet flushing, in cooling towers & for landscape irrigation.
Capacity of STP	550 KLD is proposed to be installed for treatment of sewage, 45 KLD is estimated to be treated in ETP
Rain water storage	Rain water from the roof & terrace of the building to be collected & stored in impervious soak pit.
Solid waste generation (Construction phase)	Maximum Solid waste generation would be about 2,050.37 Kg/day Bio- Medical waste is estimated to be approx. 187.5 Kg/day.
Solid waste generation	Municipal Solid Waste-2,050.37 kg/day Biomedical Waste-187.5 kg/day
Emissions	(i) Exhaust emission from DG sets

CHAIRMAN
STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) BIHAR

<table>
<tr><td></td><td>(ii) Dust emissions from construction activities & vehicular movement during construction phase.</td></tr>
<tr><td>Noise</td><td>Noise level should conform to standard prescribed by CPCB, Delhi.</td></tr>
<tr><td>Energy requirement</td><td>Estimated requirement load: 7,669 KVA
Demand Load: 6275 KW (Expected)</td></tr>
<tr><td>Energy Source</td><td>Primary source: North Bihar Power Distribution Corporation Limited.
Alternative source: DG sets – 5 nos. of total capacity 7,500 KVA</td></tr>
<tr><td>Energy Conservation</td><td>• The stair case lighting, corridor lighting, street lighting, may be dedicatedly hooked on to the dusk to dawn solar power through solar PV cells, located on the respective terraces and connected to the grid at utility, to ensure 100% utility of the solar power generated.
• Solar Panels are planned for controlling the Lighting – as a special feature, 50% of the poles- internal be on solar power- stand poles. Solar powered Security fence can be planned al-round the Facility on the Compound wall as for external protection.
• Which converting the above utility to solar power, each tower may be provided with 4kwp solar panel with dusk to dawn utility, we shall be saving approximately 138 kw contributing to a overall saving on app 4.5 lacs in an annum.
• Energy efficient T-5 fluorescent tubes, CFL with high power and electronic ballast have been proposed.
• LED fixtures shall also be installed
• High Pressure Sodium Vapor Lamps will be used for street lighting shall be installed for street lighting.</td></tr>
<tr><td>Parking Calculation</td><td>
<table>
<tr><th>Description</th><th>As Per Approved Drawings</th><th>Parking (E.C.S.)</th></tr>
<tr><td rowspan="2">Parking Required</td><td>For Residential:1 ECS/120 sq.m of carpet area
Carpet Area (13,000 m^2)

For Academic Block: 1 ECS/150 sq.m of carpet area
Carpet Area (20,350 m^2)

For Hospital Block: 1 ECS/20 beds
No. of beds (500)</td><td>109

135

25</td></tr>
<tr><td>Total ECS required</td><td>269</td></tr>
<tr><td>Parking Proposed</td><td>1 ECS/20 sq.m of Parking Area
Parking Area:5,426.6 sq.m</td><td>272</td></tr>
</table>
</td></tr>
</table>

CHAIRMAN
STATE ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY

		Total ECS provided	272
Fire Safety Management	• Fire alarm System • Fire water storage Underground (200 KL) • Fire Pumping System a) Electric hydrant & sprinkler pump capacity-2280 LPM 80 Mt head b) Diesel Engine driven pump capacity 2280 LPM 80 Mt head c) Jockey pump capacity 180 LPM 80 Mt head • Sprinkler System • Fire Hydrant		
Evacuation plan in case of disaster	Exit Signage & evacuation plan to be displayed at prominent places in the Hospital Buildings		
Environmental Management Plan	Revised EMP submitted. mitigation measures for Air, Solid Waste Management Fire Protection measures, Energy Conservation & Green-Belt Development as detailed in EMP submitted Monitoring of Ambient Air Quality, Ground Water Quality, Effluent Sample before and after STP, Noise Level & DG St Stack Emission as Prescribed by Bihar State Pollution Control Board under Consent-to-Establish or Consent-to-operate shall be complied.		
Total Cost of the Project	Rs. 151.4 Crores.		

PART A – SPECIFIC CONDITIONS

I. Construction Phase

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

ii. All around the boundary of project site 30 feet façade should be erected before starting any demolition or construction work.

iii. Provisions shall be made for the housing of labours within the site with all necessary infrastructure and facility to maintain sanitary and hygienic measures before starting construction activities and to be maintained throughout the construction phase. The housing may be in the form of temporary structure to be removed after completion of project.

iv. Health and safety norms of CPWD should be followed during the construction. It shall be ensured that construction workers must be using safety and personal protective equipment while they are on project site.

v. A first Aid Room shall be provided in the project both during construction and operation of the project. All First Aid treatment shall be free of cost.

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

CHAIRMAN
STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) BIHAR

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

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

ix. Soil and ground water samples will be tested by the project proponent from any laboratory recognized by MoEFCC/BSPCB to ascertain that there was no threat to ground water quality by leachate of heavy metals and other toxic contaminants.

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

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

xii. 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.

xiii. 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. The material loaded or unloaded should be covered (especially sand, excavated soil etc.) before transportation to avoid fugitive dust emission.

xiv. Proper measures should be adopted to control dust emission during construction phase by providing adequate number of sprinklers.

xv. Ambient noise levels should conform to the CPCB norms.

xvi. Possibilities of use of fly ash as building material shall be explored to the maximum extent possible as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 as the site is located within the 100 km of Thermal Power Stations.

xvii. Ready mixed concrete must be used in building construction to minimize use of water and also by use of pre-mixed concrete, curing agents and other best practices preferred.

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

xix. Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project. The ground water level shall be regularly monitored by installing perizometer.

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

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

xxii. 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 special reflective coating in windows.

xxiii. Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.

xxiv. Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while

CHAIRMAN
STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) BIHAR

it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.

xxv. The existing mobile tower installed on the roof of existing building should be removed before starting the construction activity.

xxvi. The approval of the competent authority shall be obtained for height of building, structural safety of the buildings due to earthquake, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening etc.

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

xxviii. Dedicated pedestrian paths shall be provided along the Hospital Building roads. Appropriate access shall be provided for physically handicapped people in the pedestrian paths.

xxix. 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.

xxx. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found the environment clearance condition was not complied.

II. Operational Phase

i. Consent to Operate under Air and Water Acts shall be obtained from BSPCB before operation failing which the Environmental Clearance herein shall be deemed to be withdrawn.

ii. The installation of the Sewage Treatment Plant (STP) should not be in the basement (UG) but at the ground level. Treated effluent from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the BSPCB. Necessary measures should be made to mitigate the odor problem from STP.

iii. The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for a land filling after recovering recyclable material. Bio-Medical Waste shall be disposed of as the Bio-Medical Waste (Management & Handling) Rules, 1998 and authorization shall be obtained from BSPCB as per applicability. Provision shall be made to treat Bio-Medical waste by attaching with nearby CBWT facility if needs.

iv. Provisions should made by the proponent to treat of MSW

v. Diesel Power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be enclosed type and conform to rules make under the Environment (Protection) Act, 1986. The height of stack of DG sets should conform to the norms of CPCB, Delhi.

vi. Noise should be controlled to ensure that it does not exceed the prescribed standards of CPCB, Delhi.

vii. The green belt of the adequate width and density preferably with local species shall be raised as per submitted plan so as to provide protection against SPM and noise.

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

CHAIRMAN
STATE ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY
(SEIAA) BIHAR

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

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

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

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

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

xiv. No mobile towers shall be erected within the proposed hospital premises.

Part – B. General Conditions

1. The environmental safeguards contained in the EMP report should be implemented in letter and spirit.
2. Provision should be made for supply of kerosene or cooking gas and pressure cooker to the labourers during construction phase.
3. Six monthly monitoring reports should be submitted to the SEIAA, Bihar, BSPCB, Ministry and its Regional Office, Ranchi.
4. Officials from the Regional Office of MoEFCC, Ranchi, SEIAA, Bihar and BSPCB who should be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
5. In the case of any changes in the scope of the project, the project would require a fresh appraisal by the SEIAA/SEAC, Bihar.
6. Risk Assessment study along-with Disaster Management Plan (DMP) shall be prepared. The mitigative measures for disaster prevention and control shall be prepared and get approval from competent authority.
7. The SEIAA, Bihar/MoEFCC 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. The Authority reserves the right to add any new condition or modify the above conditions or to revoke the clearance if conditions stipulated above are not implemented to the satisfaction of Authority or for that matter for any other Administrative reason.
8. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986.

CHAIRMAN
STATE ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY
(SEIAA) BIHAR

9. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Bihar State Pollution Control Board and may also be seen on the website of the SEIAA, Bihar and Ministry of Environment and Forests at http://www.envfor.nic.in. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Officer of MoEFCC, Ranchi

10. Any appeal against this Environmental Clearance 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.The above stipulations would be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 and with their subsequent amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Bihar and any other Court of Law relating to the subject matter.

11. Copy of Environmental Clearance, status of compliance to the various stipulated environmental conditions and environmental safeguards shall be permanently uploaded by the project proponent in its website.

Sd/
(Prof. R.C. SINHA)
Chairman,
SEIAA, BIHAR

Memo No: 181

Patna, dated - 7/9/15

Copy forwarded to:

1. The Principal Secretary, Environment & Forests, Dept. Govt. of Bihar, Sinchai Bhawan, Patna.
2. The Chairman, Bihar State Pollution Control Board, Beltron Bhawan, 2nd Floor, LBS Nagar, JawaharLal Nehru Marg, Shastrinagar, Patna-800023
3. The Chairman, SEAC, Bihar
4. The Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-23
5. Chief Conservator of Forest, Ministry of Environment, Forest and Climate Change,Regional Office (ECZ),Bungalow No. A-2, ShyamaliColony,Ranchi – 834002
6. The Advisor, (EIA), Indira Paryavaran Bhawan, JorBagh Road, Aliganj, New Delhi-110003.
7. Guard file.

Received copy of original R.C. Sinha
Rafi Ranj ASCENSO ENVIRO Pvt.
17/9

(Prof. R.C. SINHA)
Chairman,
SEIAA, BIHAR

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STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) BIHAR