

HALF YEARLY COMPLIANCE REPORT

DEC. 2020

Proposed Hospital Building

At

Indira Gandhi

Institute of Medical Sciences at District – Patna State- Bihar.

Submitted By:

M/s. Indira Gandhi Institute of Medical Sciences

Environmental Clearance vide F. No. SIA/8(a)/522/18 dated:
12/06/2018 issued SEIAA, Bihar

Half Yearly EC Compliance report of Proposed hospital building at Indira Gandhi Institute of Medical Sciences at District – Patna State- Bihar.

“COMPLIANCE REPORT”

Compliance of Environmental clearance condition as mentioned in the Environmental Clearance Letter issued vide F.No. SIA/8(a)/522/18 dated 12/06/2018.

Sl. No.	EC Condition	Compliance
	PART A – GENERAL CONDITIONS	
I.	Pre-Construction Phase	
i.	Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of EC, total built-up area and other relevant information for the general public.	Complied, Signboard displaying information regarding name of the project, total built-up area, EC details and other information for the general public is installed at the project site. Photographs attached as annexure 1.
ii.	Environmental clearance shall remain valid for a maximum period of 5 years or completion of project whichever is earlier	Noted the condition.
iii.	All around the boundary of activity site 30 feet facade should be erected before starting any demolition or construction work.	Fencing of the project site has been done. Photograph of the G.I fencing sheet is attached as annexure 2.
iv.	Provision shall be made for the housing of construction labour within or close to the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.	Housing of construction has been provided for the workers as per requirement, the local labours is also being procured for the construction purpose. Housing facility of construction labours is attached as annexure 3.
v.	Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems. Domestic as well as sanitary wastes from construction camps shall be cleared regularly.	Complied. The proper drinking water, wastewater disposal and solid waste management and primary health facilities is being ensured for Labour force. Photographs of facilities provided to the labour is attached as annexure 4.
vi.	Adequate safety measures shall be adopted for the construction workers.	All safety measures has been adopted for the construction workers. Photographs of safety measures adopted for construction workers is attached as annexure 5.
vii.	All the labourers to be engaged for construction works shall be screened for	Complied.

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Sl. No.	EC Condition	Compliance
	health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.	
viii.	Fencing of the project boundary before start of construction activities.	Fencing of the project boundary has been done. Photographs attached as annexure 2
ix.	Use of energy efficient construction materials shall be ensured to achieve the desired thermal comfort.	This condition has been complied. Fly ash Bricks is being used, which absorb less heat than normal bricks, it keeps the building cool even in summer, hence most suitable for Indian conditions. U' value of Fly ash bricks is less than normal red bricks.
x.	Use of fly ash based bricks/blocks/tiles/products shall be explored to the maximum extent possible.	Fly ash Bricks is being used, which absorb less heat than normal bricks, it keeps the building cool even in summer, hence most suitable for Indian conditions. U' value of Fly ash bricks is less than normal red bricks. Bills of Fly ash Bricks attached as annexure 6
xi.	Lay out of proposed buildings and roads within premises etc. shall be made in such a way that it shall cause minimum disturbance to the existing flora and fauna. Appropriate greenbelt shall developed to compensate the habitat loss of tree cutting (if any) from competent authority as per prevailing Act/Rules. The exotic species existing within the existing premises, if any, shall be protected.	Existing Flora and fauna will not be disturbed due to construction of proposed building. The development of greenbelt will be done as per attached layout plan.
xii.	Dedicated pedestrian paths shall be provided along the proposed Buildings. Appropriate access shall be provided for physically challenged people in the Pedestrian Paths.	Noted the condition.
xiii.	The design of service roads and the entry and exit from the buildings shall conform to the norms & standards by the State Public Works Department.	Noted the condition.
xiv.	The road system shall have road cross sections for general traffic, exclusive ways for public transport, exclusive ways for traffic mass transport (bus) system, pedestrian paths and ways, utility corridors and green strip.	Noted. The road system will have the road cross sections for general traffic, exclusive ways for public mass transport (bus) system, pedestrian paths and ways, utility corridors and green strip.

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Sl. No.	EC Condition	Compliance
xv.	Prior permission should be obtained from the competent authority for demolition of the existing structure, if any. Waste recycling plans including top soil should be developed prior to beginning of demolition and construction activity. The plans should identified wastes to be generated and designated, handling, recycling and disposal method to be followed.	Noted the condition. The maximum quantity of excavated top will be stored and reused for landscape purpose only.
xvi.	The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which should in the vernacular language, informing that the project has been accorded Environment Clearance and copies of Clearance letters are available with the State Environment Impact Assessment Authority, Bihar.	Noted the condition.
xvii.	Risk assessment study with Disaster Management Plan (DMP) shall be prepared. The mitigate measures for disaster prevention and control shall be prepared and get approval from competent authority. All other statutory clearances/licenses/permission from concerned State Government Departments Board and corporations shall be obtained for directions issued by Central Government/ State Government, Central Pollution Control Board/ Bihar State Pollution Control Board/ Bihar State Pollution Control Board.	The Document for Risk Assessment and DMP has been prepared.
xviii.	Baseline Environmental Condition of Project area i.e. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples should be conducted and report should be submitted to State Environment Impact Assessment Authority (SEIAA), Bihar and Bihar State Pollution Control Board (BSPCB), Patna prior to start of construction activities.	This condition has been complied, and the monitoring reports has been attached
II.	Construction Phase	
i.	It shall be ensured that the construction debris is properly stored on the site prior	Construction debris is being properly stored on the site prior to disposal.

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Sl. No.	EC Condition	Compliance
	to disposal. Such requirements shall be made part of the contractor agreement.	
ii.	All the top soil excavated during construction activities shall be stored for use in horticulture/ landscape development within the project site. Proper erosion control and sediment control measures shall be adopted.	Agreed to comply with.
iii.	Earth material generated from excavation shall be reused to the maximum possible extent as filling material during site development. The construction debris and surplus excavated material shall be disposed off by mechanical transport through the Patna Municipal Corporation.	This condition is being complied.
iv.	Disposal of muck, including excavated material during construction phase, shall not create any adverse effects on the neighbouring communities and shall be disposed off taking the necessary precaution for general safety and health aspects.	This condition is being complied.
v.	Low sulphur diesel generator sets should be used during construction phase. Diesel generator sets during construction phase shall have acoustic enclosures and shall conform to Environment (Protection) Rules, 1986 prescribed for noise emission standards.	To conform to the noise standards prescribed by CPCB, Enclosed type DG sets are being used. There is provision of noise shields near the heavy construction operations. High Speed diesel is being used to reduce the air emission. Photographs of D.G sets are & HSD fuel receipt attached as annexure 7.
vi.	All vehicles/ equipment deployment during construction phase be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peaking hours.	All the vehicles carrying the construction material is being operated during nonpeak hours. All the vehicles hired have the valid PUC certificates. PUC certificate of some vehicle is attached as Annexure 8
vii.	Ambient noise level shall conform to the standards prescribed by MOEF&CC, Govt. of India.	Ambient noise levels conform to the standards prescribed by MoEF&CC, Govt. of India. Environment monitoring reports has been attached.
viii.	The protective equipment such as nose mask, earplugs etc. shall be provided to construction personnel exposed to high noise levels.	Nose mask, earplugs Boots has been provided to construction personnel. Please refer to annexure 5
ix.	Construction spoils, including	No Hazardous waste has been generated

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	bituminous material and other hazardous material including oil from construction equipment must not be allowed to contaminate soil/ground water. The dumpsites for such material must be secured so that they shall not leach into the ground water.	from the Site.
x.	Proper and prior planning, sequencing and scheduling of all major construction activities shall be done. Construction material shall be stored in covered sheds. Truck carrying soil, sand and other construction materials shall be duly covered to prevent spilling and dust emission. Adequate dust suppression measures shall be undertaken to control fugitive dust emission. Regular water sprinkling for dust suppression shall be ensured.	Water sprinkling tanker is being used at the site for dust suppression. Furthermore, incoming loads is being covered with tarpaulin sheet to avoid loss of material in transport and also reduce the dust emissions. The construction material is being stored in covered sheds. Photographs of covered trucks, sheds for storage of construction material and water sprinkling facility is attached as annexure 9
xi.	Use of Ready-mix concrete is recommended for the project.	Noted, Ready mix Concrete is being used for construction activity.
xii.	Accumulation/ stagnation of water shall be avoided vendor control.	Accumulation/stagnation of water has been strictly avoided to ensure vector control.
xiii.	Regular supervision of the above measures shall be in place all through construction phase so as to avoid disturbance to the surroundings.	This condition is being followed.
xiv.	Water during construction phase should be preferred from Municipal supply.	The water requirement is being met through private water tanker.
xv.	All directions of the Airport Authority, Director of Explosives and fire department etc. shall be complied.	NOC From AAI and Fire Department has been obtained. Please refer to Annexure 10
xvi.	Unskilled construction labourers shall be recruited from the local areas.	Employment will be given to the local people from the nearby local areas.
xvii.	Provisions shall be made for integration of solar water heating system.	Agreed .
xviii.	Provision of vermi-composting for the biodegradable solid waste generated from the proposed extension buildings as well as the large amount of biomass that shall be available from the tree plantation shall be made.	Possibilities of vermiculture technologies has been explored and expert organization involved in designing and development of this technique is consulted for its cost-benefit analysis and feasibility.
xix.	Monitoring of ground water table and quality once in three months shall be carried out. Construction of tube wells, bore wells shall be strictly regulated as per CGWB norms.	Ground water monitoring is being conducted and the report of the same is enclosed.

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xx.	Permeable (porous) paving in the parking areas, and walkways should be used to control surface runoff by allowing storm water to infiltrate the soil and return to ground water.	Agreed and conditions is being complied.
xxi.	All intersections shall be designed and developed as roundabouts.	Being Complied
xxii.	All utility lines (electricity, telephone, cable, water supply, sewage, drainage etc.) shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines major trunk (water/sewerage) lines are to be laid along the utility corridor.	Noted the condition.
xxiii.	The road drainage shall be designed to enable quick runoff of surface water and prevent water logging.	The road drainage has been designed to enable quick runoff of surface water and prevent water logging.
xxiv.	Adequate provision shall be made to cater the parking needs. Parking spaces standard as given in “Manual on norms and standards for Environment Clearance of Large Construction Projects” issued by Ministry of Environment and Forests, Government of India shall be adopted.	Adequate parking space has been provided within the project premises. Parking spaces provided are in accordance with the MoEF&CC norms. Parking space provided is more than the parking required.
xxv.	Fountains shall be installed and maintained at all intersections of roads and roundabouts to minimize air/dust pollution in the campus.	Abide by to obey the stipulated condition
xxvi.	Rest room facilities shall be provided for service population.	Abide by to obey the stipulated condition
	Post Construction/Operation Phase	
i.	The environment safeguard and mitigation measures contained in the application shall be implemented in letter and spirit.	This condition will be strictly followed.
ii.	All the conditions, liabilities and legal provisions contained in the Environmental Clearance shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity. Ground water shall not be abstracted without prior permission from the competent authority.	This condition will be strictly followed.
iii.	The storm water management plan shall be implemented in such a manner that the	This condition will be complied.

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Sl. No.	EC Condition	Compliance
	storm water is discharged through an existing dedicated storm water Outfall only.	
iv.	The height of the stack of the DG sets should be as per norms of CPCB.	Adequate stack height of D.G. sets has been provided as per the stipulated guidelines of Central Pollution Control Board (CPCB) to facilitate proper dispersion of pollutants and to minimize the impact on Ambient Air Quality under the influence of local meteorology.
v.	Plantation along the side of Building & roads and in open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The Plantation shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs and herbs. Preferential plantation of flowering trees with less timber and fruit value shall be carried out.	The green belt development will be done after completion of construction work.
vi.	Two chambered container or two separate container (one for recyclable wastes and other for all organic and compostable wastes) shall be placed at appropriate distance on the roadsides and inside the building. Covered dustbins / garbage collector in convenient places to collect the Municipal solid wastes shall be provided.	This condition will be complied during the operational phase of the project.
vii.	Proper composting / vermin composting of municipal solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Municipal Solid wastes (Management and Handling) Rules, 200 (As amended)	Possibilities of Vermiculture technologies has been explored and expert organization involved in designing and development of this technique is consulted for its cost-benefit analysis and feasibility. Since, the Project is at a initial phase of construction therefore the solid waste generated at the site is of negligible amount.
viii.	The use of hand gloves, shoes and safety dress for all waste collectors and sorters shall be enforced.	Hand gloves, shoes, cap and other safety dress will be provided to waste collectors.
IV.	Entire Life of the Project	
i.	The project proponent should implement Environmental Monitoring Programme as per details submitted in EMP.	Environment Monitoring Programme will be implemented as per the EMP.
ii.	No Expansion/ modification activity should be carried out obtaining prior Environmental Clearance as per EIA	Expansion / Modification of the project will be carried out after obtaining prior Environmental Clearance as per EIA

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Sl. No.	EC Condition	Compliance
	Notification 2006.	Notification 2006.
iii.	Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise level & Analysis of Ground water samples, Monitoring of stack Emissions & Testing of emission from DG sets should be conducted and report should be submitted on monthly basis to SEIAA, Bihar & BSPCB, Patna.	This condition has been complied, and monitoring reports has been attached.
PART B-SPECIFIC CONDITIONS		
I. Pre-Construction Phase		
i.	Project Proponent should obtain prior consent to establish (NOC), under Section 25 & 26 of the Water (Prevention & Control of Pollution) Act' 1974 and under Section 21 of Air (Prevention & Control of Pollution) Act' 1981 from State Pollution control Board before start of Construction activities.	C.T.E from Bihar State Pollution Control Board has been obtained. Copy of CTE is attached as annexure 10
ii.	Project Proponent should obtain prior permission for ground water withdrawal from CGWB if applicable.	
iii.	Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plant and designs including structural design, standards and specification of all construction work from competent authority.	The Project conforms to all the requirements of Local seismic regulation. Structural Safety certificate has been attached as annexure 1
iv.	Use of energy efficient construction material to the desired thermal comfort shall be incorporated. The desired level of roof assembling "U" factor and insulation "R" value must be achieved. Roof assembling "U" factor for the top roof shall not exceed 0.4 watt/sq.m./degree centigrade with appropriate modification of specifications and building technologies. The provision of National Building Code 2005 shall be strictly followed.	The energy conservation report will be submitted when the project comes in the operational phase.
v.	Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be an integral part of the project design and should be in place before	Abide by to obey the stipulated condition

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Sl. No.	EC Condition	Compliance
	project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.	
vi.	Reduction of hard paving –onsite (Open area surrounding all buildings) and/or provision of shades on hard on hard paved surfaces to minimize heat island effect and imperviousness of the site should be undertaken.	Proper provision will be taken to minimize the heat island effect.
vii.	All proposed air/ conditioned buildings should follow the norms proposed in the ECBC regulations framed by the Bureau of Energy Efficiency.	The Condition of ECBC 2017 will be followed for proposed air/ conditioned buildings.
viii.	Monitoring of AAQ as per NAAQs 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets should be conducted and reports should be submitted on monthly basis to State Pollution Control Board (SPCB).	Monitoring of Ambient Noise level & Ambient Noise Level & Analysis of Ground Water is conducted and the monitoring report is attached.
II.	Construction Phase	
i.	The water treatment plant shall be provided for treatment of water. The treatment shall include screening, sedimentation, filtration and disinfection. Appropriate arrangement shall be made for treatment and reuse of backwash water of filtration plant.	The water treatment plant will be constructed for treatment of water as per the plan given in the application. The treatment will include screening, sedimentation. Filtration and disinfection. Appropriate arrangement will also be made for treatment and reuse of backwash water of filtration plant.
ii.	Project proponent shall provide adequate measuring arrangement in the inlet point of water uptake and at the discharge point for the measurement of water utilized in different categories and monitoring daily water consumption.	Not applicable as we are using water tanker for construction water purpose.
iii.	Regular water sprinkling shall be done all around the site to minimize fugitive dust emission during construction activities.	Regular water sprinkling has been done around the site to minimize fugitive dust emission during construction activities. Please refer to annexure 9

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Sl. No.	EC Condition	Compliance
iv.	Rain water harvesting structures should be provided as per submitted Plan.	The Rain water Harvesting pits has been designed as per the guidelines. Roof top initially used for the rain water harvesting purposes, rain water harvesting pits will be constructed at a suitable distance from STP to avoid contamination.
v.	The project proponent shall establish a fresh Bio-medical waste Treatment plant as far as possible within the campus if the capacity of existing one common Bio- Medical Waste treatment plant (within campus) is under full utilization or the same is shifted elsewhere.	To be complied.
vi.	Project proponent shall submit a plan regarding Bio-Composting (specifically food-waste) which shall form apart of Environment Management Plan (EMP) of present proposal.	To be complied.
vii.	Provision of double plumbing for re-use of treated water for garden, fountain and similar uses.	Provision of double plumbing for re-use of treated water for garden, fountain and similar uses will be provided.
III. Post Construction/ Operation Phase		
i.	Water saving practices such as usage of water saving devices/fixtures, low flushing systems, sensor based fixtures, auto control walls, pressure reducing devices etc. should be adopted.	Noted the condition.
ii.	Water budget should be adopted as per the plan submitted in the in the supplementary Form IA & EMP.	Water budget will be adopted as per our Plan submitted in Form 1A and EMP. Commitments made in Form-1, Form- 1A, EMP and other documents submitted to SEIAA will be complied.
iii.	Treated water recovered from STP would be used for flushing the toilets, gardening purpose, make up water in air conditioning systems, etc. As proposed, Fludized Bed Reactor (FBR) type sewage treatment plant should be installed. The sewage Treatment Plant shall be ensured before the completion of Building Complex.	Noted the condition.
iv.	Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Rooftop rainwater harvesting shall be adopted for the proposed Building. Every building of proposed extension project shall have	Rainwater from open spaces will also be collected and reused for landscaping and other purposes. Rooftop rainwater harvesting will be adopted for the proposed Building.

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Sl. No.	EC Condition	Compliance
	rainwater harvesting facilities.	
v.	Municipal solid wastes generated in the proposed extension buildings shall be managed and handled in accordance with the completion criteria and procedure laid down in schedule-II of the Municipal Wastes Management and handling) Rules, 2000 (As amended).	Since, the Project is in construction phase therefore, the solid waste generated from the construction labours only with minimum quantity. However, the solid waste management is being done as per Solid Waste Management Rules (SWM), 2016.
vi.	The standard for composting and treated leachates as mentioned in Schedule-IV of Municipal Wastes (Management and handling) Rules, 2000 shall be followed.	Agreed to comply with.
vii.	All hazardous wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Hazardous Wastes (Management and Handling) Rules, 1989 (As amended).	Hazardous waste will not be generated.
viii.	Recycling of all recyclable wastes such as newspaper, aluminium cans, glass bottles, iron scarp and plastics etc. shall be encouraged through private participation. Project proponent shall take appropriate action to ensure minimum utilization of plastic carry bags and plastic small container etc., within the proposed buildings shall be ensured.	Agreed to comply with.
ix.	Project Proponent shall operate and maintain the sewage collection / conveyance system regularly to ensure minimum utilization of plastic carry bags and plastic small containers etc. within the proposed buildings shall be ensured.	Agreed to comply with.
x.	Properly treated and disinfected (Ultra Violet Treatment) sewage shall be utilized in flushing the toilets, gardening purpose, make up water in air conditioning systems etc.	Properly treated and disinfected sewage will be utilized in flushing the toilets, gardening purpose, make up water in air
xi.	Non-mixing of faecal matter with the municipal solid wastes shall be strictly ensured.	It will be ensured that Fecal matter does not mix with solid waste.
xii.	Non-mixing of sewage/ sludge with rainwater shall be strictly ensured.	Non-mixing of sewage/sludge with rain water will be strictly ensured.
xiii.	Noise barriers shall be provision led at appropriate locations so as to ensure that the noise level do not exceed the prescribed standards D.G. sets shall be provided with necessary acoustic enclosures as per Central Pollution	To meet with ambient noise standards, during the construction phase there will be provision of noise shields near the heavy Construction area. D.G. sets is being provided with necessary acoustic enclosures as per Central Pollution

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Sl. No.	EC Condition	Compliance
	Control Board norms.	Control Board norms
xiv.	Back up supply shall be based on natural Gas/cleaner fuel subject to their availability.	Noted the condition.
xv.	The project proponent shall resort to solar energy at least for street lighting and water heating for proposed Building Complex, gardens/park areas.	Street lighting and water heating for proposed Building Complex, gardens/park areas will be provided with solar energy.
xvi.	During maintenance, energy efficient electric light fitting & lamps fittings & lamps-low power ballasts, low consumption high power luminaries, lux level limiters & timers for street lighting shall be provided.	Noted the condition.
xvii.	A report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building material & technology, “R” and “U” factors etc.	Noted the condition.
IV.	Entire Life of the Project	
i.	All the conditions laid down in NOC & consent to operate issued by SPCB should be strictly complied with during entire life cycle of the project.	All the conditions laid down in NOC & consent to operate issued by SPCB will be strictly complied with during entire life cycle of the project.
ii.	Monitoring of Ambient Noise Level & Analysis of Ground water Samples, Monitoring of Stack Emissions from DG sets & Testing & of untreated & treated effluent samples of STPs should be conducted and reports should be submitted on monthly basis SPCB.	Noted the condition.
iii.	The project authorities shall ensure the treated effluent and stack emissions from the unit are within the norms stipulated under the EPC rules or SPCB whichever is more stringent. In case of process disturbances/ failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.	Noted the condition.
iv.	The overall noise levels in and around	The noise level in and around the project

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	the project area shall be kept well within the standards as per CPCB norms.	area will be kept well within the standards. Noise control measures including acoustic hoods, silencers, enclosures etc., will be provided on all sources of noise generation.
v.	The project authorities shall provide requisite funds for both recurring and non-recurring expenditure to implementation schedule for all the conditions stipulated herein. The funds so provide shall not be diverted for any other purpose.	The funds for implementation of EC condition has not been diverted for any other purpose.
vi.	The green cover i.e. minimum 33% of the project area consisting of mixture of available indigenous and fast growing species of trees and perennial shrubs must be created and maintained. Plantation of (minimum 5 feet tall plants) must be planted in the coming rainy season i.e. (year 2018). Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of preferably evergreen species trees shall be completed in the initial phase of the construction stage itself.	Major part of green belt development programme will be started after construction phase.
vii.	A copy of the clearance letter shall be sent by proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban Local Body and Local NGO, if any, from whom suggestions/ representation; if any were revised while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Noted the condition.
viii.	The funds earmarked for the environmental protection measures shall be diverted for the other purposes.	The funds earmarked for the environmental protection measures has not been diverted for any other purposes.
ix.	The Project proponent shall provide all necessary logistic support to the authorized officer of this authority as when required. They will facilitate and assist the authority in site inspection and monitoring.	Noted the condition.
x.	Project Proponent shall submit (to the SEIAA, Bihar', Regional Office of MoEF&CC at Ranchi, Bihar State	Noted the condition.

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Sl. No.	EC Condition	Compliance
	Pollution Control Board) six monthly compliance report of the conditions within a fortnight after the end of every six month.	
xi.	In case of any changes in the scope of the project, the project shall require a fresh appraisal by the SEIAA.	Noted the condition.
xii.	The SEIAA Bihar will have the right to amend the above conditions and 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.	Abide by to obey the stipulated condition
xiii.	Any appeal against this Environmental Clearance shall lie with the National Green Tribunal (NGT), If preferred within a period of 30 days as prescribed under section-16 of the National Green Tribunal Act, 2010.	Noted the condition.

EC Letter



F. No. - SIA/8(a)/522/18

**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY,
BIHAR**

2nd Floor, Beltron Bhawn
Shastri Nagar
Patna - 800 023

E-mail:- seiaabihar@gmail.com
seiaa.ms.br@gmail.com

Telephone No.:- 0612 - 2281255

Dated:- 12/06/18.

To,

**M/s Indira Gandhi Institute of Medical Sciences,
Shri Akhileshwar Prasad,
(Executive Engineer - Civil),
Sheikhpura, Raja Bazar,
Patna,
Pin:- 800 014.
Email:- igimsec@gmail.com
Mobile No:- +91-9473191842**

Sub:

**INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES
(IGIMS) Proposed hospital building at Indira Gandhi
Institute of Medical Sciences at District - Patna with
proposed Built-up Area of 6867,19 M² in the proposed plot
area of 4,95,262.38 M² Environment Clearance regarding.**

Reference:-

Online Application - SIA/BR/NCP/74684/2018.

Sir,

This has reference to your online application for the above proposal of Indira Gandhi Institute of Medical Sciences for building and construction project at District- Patna. The details of the project provided by project proponent

Sl. No.	Item	Details
1.	Name of the project	INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES (IGIMS) Proposed hospital building at Indira Gandhi Institute of Medical Sciences at District - Patna
2.	S. No. in the Schedule of EIA	8(a) {Building & Construction Project}
3.	Category of the project	"B"
4.	Total Plot Area of the project	4,95,262.38 M ² or 122.38 Acres.
5.	Proposed total Built-up Area of the project	6,8671.19 M ²
6.	Geo-Coordinates of the project	Corner A - 25° 36' 41.19" N 85° 05' 30.74" E Corner B - 25° 36' 41.13" N 85° 05' 33.82" E Corner C - 25° 36' 35.55" N 85° 05' 33.94" E Corner D - 25° 36' 38.53" N 85° 05' 28.82" E
7.	New / Expansion / Modernization	Expansion Expansion of Hospital Building (500 Bedded Hospital) within existing premises of IGIMS.
8.	Existing Capacity / Area etc.	<ul style="list-style-type: none">• Medical College (100 seats), Boys Hostel (220 Nos.) & Residential quarters (Type D - 52 units, Type E - 32 units MDH - 70 units, MNH - 76 units, Girls Hostel A- type 80 units, B - type 80 units & 500 bedded Hospital Building etc.) within existing premises of IGIMS• Total Existing Area - 4,95,262.38 M² or 122.38 Acres.
9.	Maximum No. of floors	B+G+6.
10.	Greenbelt Area & Landscape Area	6500 M ²
11.	Parking Area	4,570.5 M ² (Covered) 4,300 M ² (Open)
12.	No. of Structure / Building	03
13.	Maximum height of Building (Hospital)	28 meter.
14.	New / Expansion / Modernization	Expansion Expansion project for establishment of Hospital Building (500 Bedded Hospital) within existing premises of IGIMS.
15.	Location of the Project	Hospital Building Plot Nos.:- 691, 392, 693,

		694, 695, 697, 698, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 714, 725, 726, 727, 729, 730 Village:- Scikhpura, Tehsil:- Patna Sadar, District:- Patna, State:- Bihar,
16.	Water Consumption	Fresh water consumption 200 KL/day Flushing water requirement 77 KL/day Total water consumption is 470 KL/day through PHE Departments / Municipal water supply.
17.	Power Requirement	2,787 KW through State Electricity Board
18.	Power Backup	D. G. Sets 1,000 KVA x 2 + 600 KVA x 1
19.	Fuel Consumption	Approximately 500 liters / hour
20.	Solid waste Generated	590 Kg/day (operational phase)
21.		
22.	Estimated project Cost of Project site	Total Project Cost - ₹ 2,70,32,60,025.75/-

PART A – GENERAL CONDITIONS

I. Pre- Construction Phase

- i. Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of EC, total built-up area and other relevant information for the general public.
- ii. Environmental clearance shall remain valid for a maximum period of 5 years or completion of project whichever is earlier.
- iii. All around the boundary of activity site 30 feet façade should be erected before starting any demolition or construction work.
- iv. Provision shall be made for the housing of construction labour within or close to the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.
- v. Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems.


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Domestic as well as sanitary wastes from construction camps shall be cleared regularly.


- vi. Adequate safety measures shall be adopted for the construction workers.
- vii. All the labourers to be engaged for construction works shall be screened for health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.
- viii. Fencing of the project boundary before start of construction activities.
- ix. Use of energy efficient construction materials shall be ensured to achieve the desired thermal comfort.
- x. Use of fly ash based bricks/blocks/tiles/products shall be explored to the maximum extent possible.
- xi. Lay out of proposed buildings and roads within premises etc. shall be made in such a way that it shall cause minimum disturbance to existing flora and fauna. Appropriate green belt shall be developed to compensate the habitat loss of tree cutting (if any) from competent authority as per local Act/Rules. The exotic species existing within the existing premises, if any, shall be protected.
- xii. Dedicated pedestrian paths shall be provided along the proposed Buildings. Appropriate access shall be provided for physically challenged people in the Pedestrian Paths.
- xiii. The design of service roads and the entry and exit from the buildings shall conform to the norms & standards prescribed by the State Public Works Department.
- xiv. The road system shall have the road cross sections for general traffic, exclusive ways for public mass transport (bus) system, pedestrian paths and ways, utility corridors and green strip.
- xv. Prior permission should be obtained from the competent authority for demolition of the existing structure, if any. Waste recycling plans including top soil should be developed prior to beginning of demolition and construction activity. The plans should identify wastes to be generated and designate handling, recycling and disposal method to be followed.
- xvi. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which should be in the vernacular language, informing


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- that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority, Bihar,
- xvii. Risk assessment study along with Disaster Management Plan (DMP) shall be prepared. The mitigational measures for disaster prevention and control shall be prepared and get approved from competent authority. All other statutory clearances/licenses/permissions from concerned State Governments Departments, Boards and Corporations shall be obtained as per directions issued by Central Government/State Government, Central Pollution Control Board/Bihar State Pollution Control Board.
 - xviii. Baseline Environmental Condition of Project area i.e. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples should be conducted and report should be submitted to State Environment Impact Assessment Authority (SEIAA), Bihar and Bihar State Pollution Control Board (B.S.P.C.B.), Patna prior to start of construction activities.

II. Construction Phase

- i. It shall be ensured that the construction debris is properly stored on the site prior to disposal. Such requirements shall be made part of the contractor agreement.
- ii. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- iii. Earth material generated from excavation shall be reused to the maximum possible extent as filling material during site development. The construction debris and surplus excavated material shall be disposed off by mechanical transport at place designated by local municipal Corporation.
- iv. Disposal of muck, including excavated material during construction phase, shall not create any adverse effects on the neighbouring communities and shall be disposed off taking the necessary precautions for general safety and health aspects.
- v. Low Sulphur diesel generator sets should be used during construction phase. Diesel generator sets during construction phase shall have acoustic enclosures and shall


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conform to Environment (Protection) Rules, 1986 prescribed for noise emission standards.


- vi. All vehicles/equipment deployed during construction phase shall be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peaking hours.
- vii. Ambient noise levels shall conform to the standards prescribed by MoEF&CC, Govt. of India.
- viii. The protective equipment such as nose mask, earplugs etc. shall be provided to construction personnel exposed to high noise levels.
- ix. Construction spoils, including bituminous material and other hazardous materials including oil from construction equipment must not be allowed to contaminate soil/ground water. The dumpsites for such material must be secured so that they shall not leach into the ground water.
- x. Proper and prior planning, sequencing and scheduling of all major construction activities shall be done. Construction material shall be stored in covered sheds. Truck carrying soil, sand and other construction materials shall be duly covered to prevent spilling and dust emission. Adequate dust suppression measures shall be undertaken to control fugitive dust emission. Regular water sprinkling for dust suppression shall be ensured.
- xi. Use of Ready-Mix concrete is recommended for the project.
- xii. Accumulation/stagnation of water shall be avoided ensuring vector control.
- xiii. Regular supervision of the above and other measures shall be in place all through the construction phase so as to avoid disturbance to the surrounding habitation.
- xiv. Water during construction phase should be preferred from Municipal supply.
- xv. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied with.
- xvi. Unskilled construction labourers shall be recruited from the local areas.
- xvii. Provisions shall be made for the integration of solar water heating system.
- xviii. Provision of vermi-composting for the biodegradable solid wastes generated from the proposed extension of buildings as well as the large amount of biomass that shall be available from the tree plantation shall be made.


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- xix. Monitoring of ground water table and quality once in three months shall be carried out. Boring of tube wells, shall be strictly regulated as per CGWB norms.
- xx. Permeable (porous) paving in the parking areas, and walkways should be used to control surface runoff by allowing storm water to infiltrate the soil and recharge ground water.
- xxi. All intersections shall be designed and developed as roundabouts.
- xxii. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
- xxiii. The road drainage shall be designed to enable quick runoff of surface water and prevent water logging.
- xxiv. Adequate provision shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be adopted.
- xxv. Fountains shall be installed and maintained at all intersections of roads and roundabouts to minimize air/dust pollution in the campus.
- xxvi. Rest room facilities shall be provided for service population.

III. Post Construction/Operation Phase

- i. The environmental safeguards and mitigation measures contained in the application shall be implemented in letter and spirit.
- ii. All the conditions, liabilities and legal provisions contained in the Environmental Clearance shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity. Ground water shall not be abstracted without prior permission from the competent authority.
- iii. The storm water management plan shall be implemented in such a manner that the storm water is discharged through an existing dedicated Storm Water Outfall only.


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- iv. The height of the stack of the DG sets should be as per norms of CPCB.
- v. Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The plantations shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs and herbs. Preferential plantation of flowering trees with less timber and fruits value shall be carried out.
- vi. Two chambered container or two separate containers (one for recyclable wastes and other for all organic and compostable wastes) shall be placed at appropriate distance on the roadsides and inside the building. Covered dustbins/garbage collector in convenient places to collect the Municipal solid wastes shall be provided.
- vii. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).
- viii. The use of hand gloves, shoes and safety dress for all waste collectors and sorters shall be enforced.

IV. Entire Life of the Project

- i. The project proponent should implement Environmental Monitoring Programme as per details submitted in EMP.
- ii. No expansion/modification activity should be carried out without obtaining prior Environmental Clearance as per EIA Notification, 2006.
- iii. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stock Emissions & Testing of Effluent from DG sets should be conducted and report should be submitted on half yearly basis to SEIAA, Bihar & B.S.P.C.B., Patna.




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PART B- SPECIFIC CONDITIONS

I. Pre-Construction Phase

- i. Project Proponent should obtain prior consent to establish (NOC) under Section 25 & 26 of the Water (Prevention & Control of Pollution) Act' 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act' 1981 from State Pollution Control Board before start of construction activities.
- ii. Project Proponent should obtain prior permission for ground water withdrawal from CGWB if applicable.
- iii. Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plans and designs including structural design, standards and specifications of all construction work from competent authority.
- iv. Use of energy efficient construction materials to achieve the desired thermal comfort shall be incorporated. The desired level of roof assembling "U" factor and insulation "R" value must be achieved. Roof assembling "U" factor for the top roof shall not exceed 0.4 watt/sq.m./degree centigrade with appropriate modifications of specifications and building technologies. The provisions of National Building Code 2005 shall be strictly followed.
- v. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be an integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- vi. Reduction of hard paving-onsite (Open area surrounding all buildings) and/or provision of shades on hard paved surfaces to minimize heat island effect and imperviousness of the site should be undertaken.
- vii. All proposed air/conditioned buildings should follow the norms proposed in the ECBC regulations framed by the Bureau of Energy Efficiency.


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- viii. Monitoring of AAQ as per NAAQs 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets should be conducted, and reports should be submitted on half yearly basis to SPCB.

II. Construction Phase


- i. The water treatment plant shall be provided for treatment of water. The treatment shall include screening, sedimentation, filtration and disinfections. Appropriate arrangement shall be made for treatment and reuse of backwash water of filtration plant.
- ii. Project proponent shall provide adequate measuring arrangement at the inlet point of water uptake and at the discharge point for the measurement of water utilized in different categories and monitoring daily water consumption.
- iii. Regular water sprinkling shall be done all around the site to minimize fugitive dust emission during construction activities.
- iv. Rain water harvesting structures should be provided as per submitted Plan.
- v. The project proponent shall establish a fresh Bio-medical waste Treatment plant as far as possible within the campus if the capacity of existing one common Bio-Medical Waste treatment plant (within campus) is under full utilization or the same is shifted elsewhere.
- vi. Project proponent shall submit a plan regarding Bio-Composting (specifically food-waste) which shall form a part of Environment Management Plan (EMP) of present proposal.
- vii. Provision of double plumbing for re-use of treated water for garden, fountain and similar uses.

III. Post Construction/Operation Phase

- i. Water saving practices such as usage of water saving devices/fixtures, low flushing systems, sensor based fixtures, auto control walls, pressure reducing devices etc. should be adopted.


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- ii. Water budget should be adopted as per the plan submitted in the supplementary Form I A& EMP.
- iii. Treated water recovered from STP would be used for flushing the toilets, gardening purpose, make up water in air conditioning systems, etc. As proposed, moving bed biofilm reactor (MBBR) type sewage treatment plant should be installed. The Sewage Treatment Plant shall be ensured before the completion of Building Complex.
- iv. Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Rooftop rainwater harvesting shall be adopted for the proposed Buildings. Every building of proposed extension project shall have rainwater-harvesting facilities.
- v. Municipal solid wastes generated in the proposed extension buildings shall be managed and handled in accordance with the compliance criteria and procedure laid down in Schedule- II of the Municipal Wastes (Management and handling) Rules, 2000 (As amended).
- vi. The standard for composting & treated leachates as mentioned in Schedule-IV of the Municipal Wastes (Management and handling) Rules, 2000 (As amended) shall be followed.
- vii. All hazardous wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Hazardous Wastes (Management and Handling) Rules, 1989 (As amended).
- viii. Recycling of all recyclable wastes such as newspaper, aluminium cans, glass bottles, iron scrap and plastics etc. shall be encouraged through private participation. Project proponent shall take appropriate action to ensure minimum utilization of plastic carry bags and plastic small containers etc. within the proposed buildings shall be ensured.
- ix. Project proponent shall operate and maintain the sewage collection/conveyance system, sewage pumping system and sewage treatment system regularly to ensure the treated water quality within the standards prescribed by MoEF&CC Government of India.


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- x. Properly treated and disinfected (Ultra Violet Treatment) sewage shall be utilized in flushing the toilets, gardening purpose, make up water in air conditioning systems etc.
- xi. Non-mixing of faecal matter with the municipal solid wastes shall be strictly ensured.
- xii. Non-mixing of sewage/sludge with rainwater shall be strictly ensured.
- xiii. Noise barriers shall be provided at appropriate locations so as to ensure that the noise levels do not exceed the prescribed standards. D.G. sets shall be provided with necessary acoustic enclosures as per Central Pollution Control Board norms.
- xiv. Back up supply shall be based on natural Gas/cleaner fuel subject to their availability.
- xv. The project proponent shall resort to solar energy at least for street lighting and water heating for Proposed Building Complex, gardens/park areas.
- xvi. During maintenance, energy efficient electric light fittings & lamps- low power ballasts, low consumption high power luminaries, lux level limiters & timers for street lighting shall be provided.
- xvii. A report on the energy conservation measures conforming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, "R" and "U" factors etc.

IV. Entire Life of the Project

- i. All the conditions laid down in NOC& consent to operate issued by SPCB should be strictly complied with during entire life cycle of the project.
- ii. Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG Sets & Testing of Untreated & treated effluent samples of STPs should be conducted and reports should be submitted on half yearly basis to SPCB.
- iii. The project authorities shall ensure that the treated effluent and stack emissions from the unit are within the norms stipulated under the EPC rules or SPCB whichever is more stringent. In case of process disturbances/failure of pollution


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- control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- iv. The overall noise levels in and around the project area shall be kept well within the standards as per CPCB norms.
 - v. The project authorities shall provide requisite funds for both recurring and non-recurring expenditure to implement the conditions stipulated by SEIAA, Bihar with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
 - vi. The green cover i.e. minimum 33% of the project area consisting of mixture of available indigenous and fast growing species of trees and perennial shrubs must be created and maintained. Plantation of (minimum 5 feet tall plants) must be planted in the coming rainy season i.e. (year 2018). Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of preferably evergreen species trees shall be completed in the initial phase of the construction stage itself.
 - vii. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
 - viii. The funds earmarked for the environmental protection measures shall not be diverted for other purposes.
 - ix. The Project proponent shall provide all necessary logistic support to the authorised officer of this authority as when required. They will facilitate and assist the authority in site inspection and monitoring.
 - x. Project Proponent shall submit (to the SEIAA, Bihar, Regional Office of MoEF&CC at Ranchi, Bihar State Pollution Control Board) six monthly compliance report of the conditions within a fortnight after the end of every six month.
 - xi. In case of any changes in the scope of the project, the project shall require a fresh appraisal by the SEIAA.


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- xii. The SEIAA Bihar will have the right to amend the above conditions and 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.
- xiii. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal (NGT), if preferred within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.



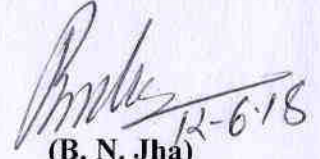
**Chairman
SEIAA, Bihar**

Sd/-
(B. N. Jha)
Chairman
SEIAA, Bihar

**Chairman
SEIAA, Bihar**

Copy forwarded to:

1. The Principal Secretary, Environment & Forests, Dept. Govt. of Bihar, Sinchai Bhawan, Patna.
2. The Chairman, Bihar State Pollution Control Board, Patna-23 (By E-mail)
3. The Chairman, SEAC, Bihar (By E-mail)
4. The Chairman, Central Pollution Control Board. Delhi (By E-mail)
5. The Advisor, (EIA), Indira Paryavaran Bhawan, JorBagh Road, Aliganj, New Delhi-110003 (By E-mail)
6. Guard file.

 R-6.18

(B. N. Jha)
Chairman
SEIAA, Bihar

Chairman
SEIAA, Bihar

The first part of the document is a letter from the President of the United States to the Congress, dated September 17, 1787. In this letter, the President explains the reasons for calling the Constitutional Convention and describes the process of the convention. He mentions that the convention was held in Philadelphia and that the delegates there drafted the Constitution. The President also notes that the Constitution was signed on September 17, 1787, and that it was then sent to the states for ratification.

[Faint handwritten notes or signatures in the left margin]

Test Report



TEST REPORT

TEST REPORT NO.: ETS/1208-10/11/2020

DATE OF REPORT:

31.10.2020

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : M/S INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES (IGIMS)
PROPOSED HOSPITAL BUILDING AT INDIRA GANDHI INSTITUTE
OF MEDICAL SCIENCE AT DISTRICT- PATNA, BIHAR

Date of Monitoring : 26.10.2020

Analysis Start Date : 29.10.2020

Analysis End Date : 31.10.2020

Duration Of Monitoring : 26.10.2020 To 27.10.2020

Time Of Monitoring : 10.10 AM To 10:05 AM

Sample ID No : 1208-10

Sampling Done By : ETS STAFF

Sampling Location : PROJECT SITE

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 1.5 METER FROM GROUND LEVEL

Weather Condition : CLEAR Ambient Temperature: 29.0 °C

Wind Direction : E To W

Equipment Used : Respirable Dust Sampler (PM₁₀) + Fine Particulate Sampler (PM_{2.5})

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Particulate Matters,(PM ₁₀)	µg/m ³	105.3	For 24 Hrs.=100	IS 5182 (Part-23)
2	Particulate Matters,(PM _{2.5})	µg/m ³	45.3	For 24 Hrs.=60	ETS/STP/AIR-03
3	Sulphur Dioxide, (SO ₂)	µg/m ³	12.8	For 24 Hrs.=80	IS: 5182 (Part-2)
4	Nitrogen Dioxide,(NO ₂)	µg/m ³	25.7	For 24 Hrs.=80	IS: 5182 (Partt-6)

*****End of Test Report*****



Note:-

1. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.
2. The samples received shall be destroyed after 15 days from the date of test report issued.
3. The results indicated only refer to the tested samples and listed applicable parameters.
4. Our liability is limited to invoice value only.
5. Head Office : G-232, M.G. Road Industrial Area, Hapur-Ghaziabad (U.P.) 201015



TEST REPORT

TEST REPORT NO.: ETS/1208-11/11/2020

DATE OF REPORT: 31.10.2020

NOISE MONITORING REPORT

Name And Address of Customer : M/S INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES (IGIMS)
PROPOSED HOSPITAL BUILDING AT INDIRA GANDHI
INSTITUTE OF MEDICAL SCIENCE AT DISTRICT- PATNA, BIHAR

Date of Monitoring : 26.10.2020

Monitoring Start Date : 26.10.2020

Monitoring End Date : 27.10.2020

Duration Of Monitoring : 24 HOURS

Sample ID No : 1208-11

Monitoring Done By : ETS STAFF

Sampling Location : PROJECT SITE

Sampling Method : ETS/STP/NOISE-01

Category Of Area : SILENCE AREA

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Day Time Noise Level	Leq :dB (A)	48.1	50	IS: 9989
2	Night Time Noise Level	Leq :dB (A)	36.2	40	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

*****End of Test Report*****

Page 1 of 1



FOR ENVIRO-TECH SERVICES

CHECKED BY

Format No ETS/LAB/TR-02, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md Humraj

Quality Manager

Note:-

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4. Our liability is limited to invoice value only.
5. Head Office : G-232, M.G. Road Industrial Area, Hapur-Ghaziabad (U.P.) 201015



TEST REPORT

TEST REPORT NO.: ETS/1208-12/11/2020

DATE OF REPORT: 31.10.2020

SOIL SAMPLE ANALYSIS REPORT

Name And Address of Customer : M/S INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES (IGIMS)
PROPOSED HOSPITAL BUILDING AT INDIRA GANDHI
INSTITUTE OF MEDICAL SCIENCE AT DISTRICT- PATNA, BIHAR

Date of Sampling : 26.10.2020

Analysis Start Date : 29.10.2020

Analysis End Date : 31.10.2020

Sample ID No : 1208-12

Sampling Done By : ETS STAFF

Sampling Description : SOIL

Sampling Location : PROJECT SITE

Sampling Method : ETS/STP/SOIL-01

Sample Quantity : 2.0 Kg.

Packing Condition : SEALED

Packed In : POLY BAG

S. No.	Test Parameter	Unit	Result	Test Method
1	Texture	...	SANDY CLAY LOAM	IS 2720 (Part-4)
2	Sand	%	61.0	IS 2720 (Part-4)
3	Silt	%	15.5	IS 2720 (Part-4)
4	Clay	%	23.5	IS 2720 (Part-4)
5	pH	...	7.42	IS 2720 (Part-26)
6	Electrical Conductivity (EC)	µs/cm	324.0	IS 14767
7	Water Holding Capacity (WHC)	%	32.7	IS 2720 (Part-2)
8	Cation Exchange Capacity (CEC)	meq/100	21.4	IS 2720 (Part-24)
9	Sodium,(Na)	mg/kg	97.3	APHA-3125B
10	Potassium (K)	mg/kg	34.5	APHA-3125B
11	Magnesium,(Mg)	Mg/kg	424.5	ETS/STP/SOIL-08
12	Calcium,(Ca)	mg/kg	1076.2	APHA-3125B

*****End of Test Report*****



Note:-

1. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.
2. The samples received shall be destroyed after 15 days from the date of test report issued.
3. The results indicated only refer to the tested samples and listed applicable parameters.
4. Our liability is limited to invoice value only.
5. Head Office : G-232, M.G. Road Industrial Area, Hapur-Ghaziabad (U.P.) 201015



TEST REPORT

TEST REPORT NO.: ETS/1208-13/11/2020

DATE OF REPORT: 31.10.2020

WATER SAMPLE ANALYSIS REPORT

Name And Address of Customer : M/S INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES (IGIMS)
PROPOSED HOSPITAL BUILDING AT INDIRA GANDHI INSTITUTE
OF MEDICAL SCIENCE AT DISTRICT- PATNA, BIHAR

Date of Sampling : 26.10.2020

Analysis Start Date : 29.10.2020

Analysis End Date : 31.10.2020

Sample ID No : 1208-13

Sampling Done By : ETS STAFF

Sampling Description : GROUND WATER

Sampling Location : PROJECT SITE

Sampling Method : ETS/STP/WATER-02

Sample Quantity : 2.0 + 0.5 Ltr.

Packing Condition : SEALED

Packed In : P.V.C. AND GLASS BOTTLE

S. No.	Test Parameter	Unit	Result	Specification/Limit (As per IS:10500: 2012)		Test Method
				Desirable	Permissible	
1	pH	...	7.36	6.5 - 8.5	No Relaxation	APHA 4500-H+
2	Turbidity	NTU	<1.0	1	5	APHA 2130-B
3	Total Dissolved Solids,(TDS)	mg/L	465.0	500	2000	APHA 2540-C
4	Chlorine (Residual)	mg/L	<0.2	0.2	1	APHA 4500:(Cl)-B
5	Fluoride,(F)	mg/L	<0.01	1	1.5	APHA 4500:(F-)-D
6	Total Alkalinity,(CaCO ₃)	mg/L	165.1	200	600	APHA 2320-B
7	Total Hardness,(CaCO ₃)	mg/L	139.6	200	600	APHA 2340-C
8	Calcium,(Ca)	mg/L	54.2	75	200	APHA 3500:(Ca)-B
9	Chloride,(Cl)	mg/L	132.3	250	1000	APHA 4500:(Cl-)-B
10	Nitrate,(NO ₃)	mg/L	1.32	45	No Relaxation	APHA 4500:(NO ₃)-B
11	Sulphate,(SO ₄)	mg/L	65.6	200	400	APHA 4500:(SO ₄)-E
12	Conductivity	µs/cm	674.0	Not Specified	Not Specified	APHA 2510-B
13	Chromium,(Cr ⁺⁶)	mg/L	<0.05	Not Specified	Not Specified	APHA 3500:(Cr)-B
14	Iron,(Fe)	mg/L	0.15	0.3	No Relaxation	APHA-3120B
15	Escherichia coli	MPN/100mL	Absent	Shall Not Be Detectable.		IS 1622

*****End of Test Report*****

Page 1 of 1



FOR ENVIRO-TECH SERVICES

CHECKED BY

Format No ETS/LAB/TR-09, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md Humraj

Quality Manager

Note:-

1. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.
2. The samples received shall be destroyed after 15 days from the date of test report issued.
3. The results indicated only refer to the tested samples and listed applicable parameters.
4. Our liability is limited to invoice value only.
5. Head Office : G-232, M.G. Road Industrial Area, Hapur-Ghaziabad (U.P.) 201015

Annexure 1.

Sign Board of the Project Site.



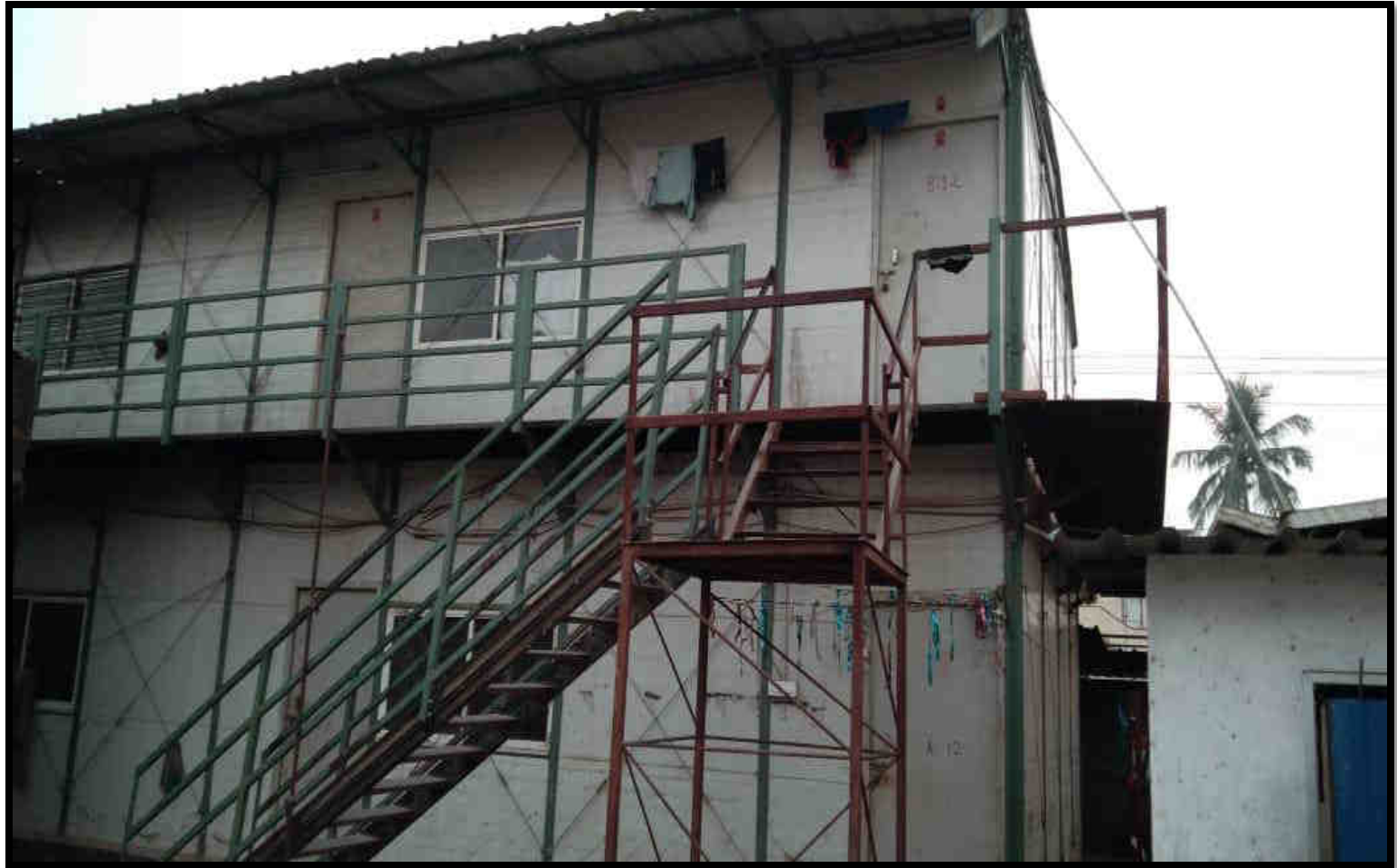
Annexure 2.

Barricading of the project site.



Annexure 3.

Rest shelter for workers.



Annexure 4.

facilities provided to workers.



Drinking Water



Toilets



First Aid Room



First Aid Facility



Dust bin

Annexure 5. Safety Measures adopted



Annexure 6. Bills fly-ash Bricks

CHALLAN MOB. 8539932441
RITIKA ENTERPRISES

No. 720 Date 25/11/20

Name of Company P. SK. Eng. Con. Pvt Ltd

Name of Site ICMMS Patna

Name of Material Flyash Bricks

Mining Challan No. BR01079236

Measurement 1900/ 1827 Nos

Time :

Signature of Driver

Checked & Passed by

Samsung Quad Camera
Vijay k suryavanshi

CHALLAN MOB. 8539932441
RITIKA ENTERPRISES

No. 881 Date 23/11/20

Name of Company P SK Eng. Con. Pvt Ltd

Name of Site ICMMS Rajabajar Patna

Name of Material Flyash Bricks

Mining Challan No. BR01079236

Measurement 1900/

Time :


Signature of Driver

Checked & Passed by

Samsung Quad Camera
Vijay k suryavanshi

Annexure 7.

Silent D.G sets & HSD receipt

 **Apurv Petro Sales** GSTIN : 10AFSPS2473M1ZW
Dealer : Indian Oil Corporation Ltd. SAP Code : 219621
Naya Tola Kumbhar, Kankarbagh Road, Patna - 800 026
Phone : 0612-2344264 Mob : 8228981925

Re. No. Date: 13/10/2020

From: Apurv Petro Sales
Kumbhar Patna


For: PSK Engineering
IGIMS Patna Site

HSD Bill from 01.10.20 to 14.10.2020

Date	Rate	Litres	Amount
01-10-2020	78.15	1842	148258.3
04-10-2020	78.1	1272	99795.2
08-10-2020	78.1	1264	98190.4
12-10-2020	78.1	1802	137132.2

Previous Dues as on 30th September : 16,00,412
Payment Received on 1st October : 5,17,033
Bill For 1st to 14th October : 4,70,390

Total Outstanding : 15,53,769


Samsung Quad Camera
Vijay k suryavanshi





Apurv Petro Sales

GSTIN : 10AFSPS2473N1ZW

Dealer : Indian Oil Corporation Ltd.

SAP Code : 218621

Naya Tola Kumhrar, Kankarbagh Road, Patna - 800 026

Phone : 0612-2344264 Mob. : 8228981925

From: Apurv Petro Sales
Kumhrar Patna

Date: 30/09/2020

For: PSK Engineering
IGIMS Patna Site

HSD Bill from 14.09.20 to 30.09.2020

Date	Rate	Litrs	Amount
14-09-2020	78.18	924	72238.32
20-09-2020	77.04	1889	143217.4
25-09-2020	76.64	1464	112201
28-09-2020	76.31	950	72484.5

TOTAL: Rs. 4,00,151.1



Samsung Quad Camera
Vijay k suryavanshi

Annexure 8. PUC certificate

प्रदूषण नियंत्रित प्रमाणपत्र (All India Valid)
POLLUTION UNDER CONTROL CERTIFICATE दिल्ली संहित

अधिकृत परिवहन आयुक्त, हरियाणा
Authorised By : Transport Commissioner Haryana

संख्या S.No. प्रमाणित किया जाता है कि इस वाहन का HSUIK उत्सर्जन स्तर को, मो. वा. नियम 1989 के नियम 115 (2) में निर्धारित स्तर के अनुरूप

प्रमाणित किया जाता है कि इस वाहन का HSUIK उत्सर्जन स्तर को, मो. वा. नियम 1989 के नियम 115 (2) में निर्धारित स्तर के अनुरूप

मूल तलम विधि द्वारा निर्धारित धम धानक सीमा HSU=85%
Prescribed Smoke Density, Air Emission Regulation 2.46 1/m

Sp. No.	RPM Min.	RPM Max.	HSU %	K Value	O_Temp
1	960	1920	29.93	00.64	63
2	583	1790	23.38	00.62	62
3	570	1640	23.11	00.61	64
	593	1610	24.26	00.65	62
MEAN			23.70	00.63	

वाहन पंजी संख्या HR55AF3151
Vehicle Reg. No.

ब्रैंड TATA
MAKE

मॉडल 2518
Model

वर्ग TRUCK
Category

वर्ष 1-1-2019
Year

ईंधन DIESEL
Fuel

दिनांक 15-9-2020
Date

समय 05:43 PM
Time

यदि आपका वाहन शिकायत है तो कृपया संबंधित प्रादेशिक परिवहन प्राधिकारी, गुडगांव (हरियाणा) को लिखें।
In case of any Comments/ Complaint please write to Secretary Regional Transport Authority Gurgaon Haryana

हस्ताक्षरकर्ता
Authorised Signatory :

नाम
Name

वैधता 14-3-2021
Valid upto

अधिकृत केंद्र कोड
Authorised Center Code **GGND0098**

K S POLLUTION CHECKING CENTRE
Sec. 44, Gurgaon (Haryana)




Annexure 9.



Covered Truck



Shed for Storage of Const. Materials



Water Sprinkling

Annexure 10
NOC
FIRE/ AAI/ CTE

Letter No. 3351
OFFICE OF THE STATE FIRE OFFICER-CUM-DIRECTOR, BIHAR, PATNA.

From,

Upendra Prasad Singh,
State Fire Officer,
Bihar, Patna.

To,

Superintending Engineer,
Indira Gandhi Institute of Medical Sciences
Sheikhpura, Patna.

Patna Dt. 15. 09. 2017.

Sub :- The views regarding proposed Hospital building of above 15 mtr. in height to be constructed at Dist- Patna.

Sir,

Please refer to your letter no.- 276/EC/17 dt. - 18/08/2017 through which this aforesaid plan has been sent to us for examination, which was examined by the Fire Service committee.

During examination of the plan it was found that a B+G+6, Hospital building, shall be constructed on 120 feet wide road, belongs to Indira Gandhi Institute of Medical Science (IGIMS) at Dist- Patna.

We clear the plan after giving following advice/suggestions/ recommendations based on NBC guideline, local building by laws & the local circumstances which must be followed by the concerned Architect / Developer/ Land owner as the case may be.

i) Construction :

- a) The whole construction of the proposed building shall be carried out as per approved plan drawing conforming the relevant building rules of local Municipal Corporation as per Building Bye laws Bihar, 2014.
- b) The floor area exceeds 750 m² shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
- c) The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
- d) Provision of ventilation at the crown of the central core-duct of the building shall be provided.
- e) Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

ii) Open Space & Approach :

- a) The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility 3.60 m/s (minimum).
- b) The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 20 M.T.
- c) The width and height of the access gates into the premises shall not be less than 4.5 M and 5M respecting abutting the road.

iii) Stair Case :-

- a) The Staircase of the building shall be enclosed type. Entire construction shall be made of brick / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.
- b) The Staircase of the building shall have permanent vents at the top equal to 5% of the cross sectional area of the staircase enclosures and openable sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.
- c) All the Staircase of the building shall be negotiable to each other in each floor without entering into any room and shall be extended up to respective terrace. The roof of the Stair wall shall be 1M above the surrounding roof area.
- d) The width of the Staircases and corridor and travel distance of different categories of occupancies shall have to conform the relevant building rules.
- e) In case of two staircase, one must be on outer wall.
- f) Both staircase are not went down to basement floor, for approach to basement, there should be another staircase for approach.

iv) LIFT :-

- a) The walls of the Lift enclosure of the building shall be at least two hours Fire resisting type respectively marked in the plan with the event at top of area not less than 0.2 m^2 .
- b) The lift of the building shall be designed at high speed "Fire Lift" and conspicuously indicated marked in the plan.
- c) In case of failure of normal electric supply, it shall automatically trip over to alternate supply. For apartment houses these change over of supply could be done through manually operated change over switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level and comes to stand still with door open.
- d) Arrangement shall be provided for extraction of smoke in all the lift shaft by incorporation smoke venting system designed to permit 30 Air changes per hour in case of Fire and shall be of such design as to operate on actuation of sprinkler or Fire Alarm. In case of failure of normal electric supply. It shall automatically trip to alternate supply.
- e) All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.
- v) That the basement should be equipped with automatic sprinkler's installation & must have two separate exits.
- vi) The whole building should be equipped with automatic sprinkler's installation & automatic alarm system.
- vii) That active Fire protection system such as down comer system with landing valve and hose reel at each floor incorporated with 900 LPM pump at Terrace level, ISI marked Fire extinguishers as per I.S 2190/1992 & relevant specification, Yard Hydrant, Smoke detector, F.R. check door, manual call alarm point, Fire safety luminescent sign & other Fire precautionary measures as mentioned in NBC be provided before occupancy.
- viii) That an underground water static tank of not less than 1,00,000 Ltrs. capacity with automatic refilling arrangements preferably on front side where Fire Brigade vehicles can reach easily & overhead water static tank of not less than 10,000 Ltrs. capacity should be made available before occupancy.
- ix) That the internal finishing shall be non-combustible or class - I surface spread of flame.
- x) That electric cables must be shield at each floor with intumescent coating .
- xi) That Fire exit drill be carried out regularly at least twice in a year after occupation.
- xii) That the building must be constructed on at least 40 feet wide road and it is responsibility of the concerned Architect to be ensure the road width because he is the passing authority.
- xiii) That AMC should be given to a qualified firm or person for the maintenance of above recommended Fire equipments.
- xiv) That the setback shall be checked by the Architect / Passing authority as per the established rule. If any thing wrong , the Architect / Passing authority shall be held responsible.
- xv) It is hereby made clear that in case of any legal dispute arising in future, in which above recommendations have not been complied, the responsibility will fall entirely upon the Developers/ Architect/ Landowner as the case may be and not on the recommending Govt. authority (i.e. the office of the State Fire Office, Bihar).
- xvi) It is hereby made also clear that this office (i.e. the office of the State Fire Officer-cum-Director, Bihar, Patna) is not responsible for any legal dispute of the land upon which the proposed building shall be constructed.

This shall be treated as provisional. On compliance of all the above Fire and Life Safety recommendations, this office shall be approached for necessary inspection and testing of the installation, Final in favor of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B. - Any deviation and changes the nature of use of the building in respect of the approved plan drawing without obtaining prior permission from this office, this provisional will be treated as cancelled.

The maps are being returned with sign and stamp .

Encl - As Above

Yours faithfully,



(Upendra Prasad Singh)

No. AAI/ER/NOC/(143/14) **9059-53** Date: 5/9/2014

Akhilshwar Prasad
 Executive Engineer, IGMS, Shekhpura, Bailey Road, Patna

NO Objection Certificate for Height Clearance

This NOC is issued by Airports Authority of India (AAI) in pursuance of responsibility conferred by and as per the provisions of Govt. of India (Ministry of Civil Aviation) order SO84.(E) dated 14th Jan 2010 for Safe and Regular Aircraft Operations

1. References:

NOCID	PATN/EAS1/B/030614/22708
Applicant Letter	
AAI Reference	

2. NOC Details for Height Clearance:

Applicant Name	Akhilshwar Prasad
Type of Structure	Building
Site Address	Mauza- Shekhpura, Plot no - 421,422,494,495,496,497,531,534,575,577,579,580,582,583,584,586,587,588,601,602,603,604,605Mauza-Shekhpura, Thana no -9, Bailey Road, Patna
Site Coordinates	25 36 39 68N -85 5 24 21E 25 36 39 31N 85 5 11 68E 25 36 48 98N -85 5 27 81E 25 36 41 23N 85 5 14 98E
Site Elevation AMSL in Mtrs	53 Mtrs FIVE THREE METRES
Permissible height above Ground Level in Mtrs	28.7 Mtrs TWO EIGHT DECIMAL SEVEN METRES
Permissible Top Elevation AMSL in Mtrs	81.7 Mtrs EIGHT ONE DECIMAL SEVEN METRES

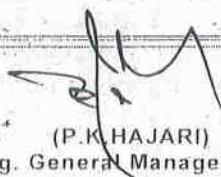
3. This NOC is subject to the terms and conditions as given below:

- a. The site elevation and site coordinates provided by the applicant are taken for calculation of the permissible top elevation for the proposed structure. If, however, at any stage it is established that the actual data is different from the one provided by the applicant, this NOC will be invalid.
- b. The issue of the 'NOC' is further subject to the provisions of Section 5-A of the Indian Aircraft Act 1934 and those of any notifications issued there under from time to time including the Aircraft (Demolition of Obstruction caused by buildings and trees etc.) Rules 1994.
- c. No radio/TV Antenna, lighting arresters, staircase, Mumpole, Overhead water tank and attachments of fixtures of any kind shall project above the Permissible Top Elevation 81.7 Mtrs. indicated in para 2.
- d. The use of oil fired or electric fired furnace is mandatory within 8 KM of the Aerodrome Reference Point.
- e. The certificate is valid for a period of 5 years from the date of its issue. If the building/structure/Chimney is not constructed & completed within the period, the applicant will be required to obtain a fresh 'NOC' from the Designated Officer of Airports Authority of India. The date of completion of Building/Structure/Chimney should be intimated to this office of AAI. Request for revalidation of NOC will not be entertained after the expiry of its

ity period

- f. No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time, during or after the construction of the building
- g. The applicant will not complain/claim compensation against aircraft noise, vibrations, damages etc caused by aircraft operations at or in the vicinity of the airport
- h. Day markings & night lighting with secondary power supply shall be provided as per the guidelines specified in chapter 6 and appendix 6 of Civil Aviation Requirement Series 'B' Part I Section 4, available on DGCA India website: www.dgca.nic.in
- i. The applicant is responsible to obtain all other statutory clearances from the concerned authorities including the approval of building plans as this NOC for height is for the purpose of 'to ensure the safe and regular aircraft operations' and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc
- j. This NOC has been issued w.r.t. the Civil Airports as notified in S.O. 84(E). Applicant needs to seek separate NOC from Defence, if the site lies within jurisdiction of Defence Airport.

This certificate is issued for "HEIGHT CLEARANCE ONLY" with the approval of Competent Authority for Permissible Top Elevation **81.7** Mtrs.


 (P.K. HAJARI)
 Offg. General Manager (Aero) ER

Airports Authority Of India

Copy to :

1. The Executive Director (ATM), AAI, Rajiv Gandhi Bhavan, Safdarjung Airport, New Delhi-110003
2. GM (NOC)/Airport Director (Bundle)
3. Guard File
4. Airport Director J.P.N.I. Airport PATNA-800014





BIHAR STATE POLLUTION CONTROL BOARD

Parivesh Bhawan, NSB-2, Patliputra Industrial Area
Patliputra, Patna - 800 010

Ref. No.

Patna, dated:-

'CONSENT-TO-ESTABLISH' (NOC) NOC UNDER SECTIONS 25/26 OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974 AND 21 OF THE AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981

Reference application ID. 3847491, dated 12.08.2020 of M/s PSK Engineering Construction and Co., IGIMS, Sheikhpura, Raja Bazar, Dist.- Patna-800014 for establishment of Construction unit at Khata no.- 09, Khesra no.- 688,692,695, Mauza- Sheikhpura, IGIMS, Sheikhpura, Raja Bazar, Dist.- Patna-800014 with capacity as details given below:-

- (a) Construction of 500 bedded hospital at IGIMS, Patna.
Total investment shall be Rs. 28000.22 Lakhs.

AFTER CONSIDERING:

- (i) The facts stated in their application;
- (ii) Bihar State Pollution Control Board's Notification No. 26 dated 08.11.2003;
- (iii) Provisions of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.
- (iv) As per affidavit submitted by the Proponent.

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL CONDITIONS:-

- (i) The proponent shall obtain 'Consent-to-Operate' under sections 25 & 26 of the Water Act, 1974 and Section 21 of the Air Act, 1981 prior to commissioning of the plant from this Board;
- (ii) The effluent (domestic or trade) and emission, if any, shall conform to the standard prescribed by the Board;
- (iii) Diesel generator sets, if any, shall have acoustic enclosures and should conform to the Environment (Protection) Rules, 1986 prescribed for air and noise emission standards. Ambient noise levels should conform to residential standards both during day and night.
- (iv) The height of the stack of the D.G. Set should be as per norms of CPCB.
- (v) Adequate storm water drainage shall be provided in the premises to prevent sudden discharge of excessive volumes of storm water to the receiving waters thus reducing the shock load on the drainage system.
- (vi) All mandatory approvals and permissions such as fire Department, Airport Authority, Health and Safety for users should be obtained.
- (vii) Provision of effective Controls of Building Management Systems such as Automatic Fire Alarm and Fire Detection and Suppression System etc, must be ensured.
- (viii) The proponent should abide by the Solid Wastes Management Rules, 2016. They will insure segregation of waste facilitation of segregated waste in separate streams, handover recyclable material to either authorised waste pickers or recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio methnation in their premises as far as possible the residual waste shall be given to waste collector or agency as directed by the local body.
- (ix) Ground water should not be abstracted without prior permission of the competent authority.
- (x) The unit should follow the provisions of the Construction and Demolition Waste Management Rules, 2016.
- (xi) Construction work shall be done in covered shed and step will be taken to minimize fugitive emission, during carriage, Loading and unloading of construction materials.

Page 1 of 2



BIHAR STATE POLLUTION CONTROL BOARD

Parivesh Bhawan, NSB-2, Patliputra Industrial Area
Patliputra, Patna - 800 010

SPECIFIC CONDITIONS:-

- (i) The unit shall carry out construction activity with adequate green cover/mesh to arrest dust particles. The cover should be of minimum 10-15 feet height of G.I. sheet along with green cover mesh cover to completely cover the construction activity.
- (ii) The unit shall make adequate arrangement of water spraying and use dust suppressants regularly.
- (iii) The unit shall carry/store construction material/debris only under cover.
- (iv) That they shall have to construct at full-fledged Sewage/ Effluent Treatment Plant (ETP/STP) to treat the waste water generated in the premises. The quality of treated effluent shall meet the standards prescribed for the reuse of water at least for irrigation purpose.
- (v) Treated waste water shall be fully reused for irrigation of its own land, car washing etc.
- (vi) Adequate measures shall be adopted for water conservation during construction and operation stage. Use of efficient irrigation equipment, evaporative cooling unit in air conditioning system etc should be considered.
- (vii) The proponent shall provide different colored bins for different categories of waste and ensure complete segregation of biodegradable and non-biodegradable wastes. The solid waste from different collection and storage bins should be finally collected at transfer stations. Further segregation will be done at transfer stations to collect recyclables such as plastic, polythene, glass, metals, textiles, rubbers, leathers, paper etc. Separate compartments shall be provided for each type of recyclables.
- (viii) Water meter conforming to ISO standards shall be installed at the inlet point of water uptake to monitor the daily water consumption. Use of water efficient devices / fixtures and appliance should be promoted. Installation of dual flushing system should be considered to conserve water.
- (ix) The proponent must practice rainwater harvesting on regular basis.
- (x) That, they shall resort to solar energy at least for street lighting, water heating, garden/Park area.
- (xi) That, tree plantation shall be done in space available in the campus.
- (xii) They shall submit compliance report of above conditions along with the evidence in the form of photographs bills of procurement etc.

NOTE:

1. Bihar State Pollution Control Board reserves the option to revise or add other conditions, if necessary, for protection of Environment in general and for Pollution Control in particular;
2. The present NOC should not be construed as an assurance for the grant of 'Consent-to-Operate' to the proposed plant which shall be subject to compliance of all the conditions indicated above and those in the EC.
3. The NOC, granted, shall be valid for a period of two years from the date of issue.

Sd/-

(Alok Kumar)

Member Secretary

Patna, dated:- 02.09.2020

Memo No.:- 3672
Copy forwarded to: M/s PSK Engineering Construction and Co., IGIMS, Sheikhpura,
Raja Bazar, Dist.- Patna-800014/RO, Patna for favour of information and necessary action.

(Alok Kumar)

Member Secretary

Page 2 of 2

Annexure. 11

Structural Safety Certificate



Design Group
Structural Consultants

To whom it may concern

This is to certify that Proposed 500 bedded teaching Hospital at Indra Gandhi Institute of Medical Science (IGIMS) Patna, Bihar have been designed as under.

It has designed to sustain all type of loading (i-e dead load, live load, earthquake load, wind load etc.) as per National Building Code and Bureau of Indian Standards in relation to Structural Safety / Stability possibly against Earthquake & Relative Hazard.

(P. Kumar) 

For Design Group

Office Address: Plot No.-54, Third Floor, Pocket-26, Sector-24, Rohini, New Delhi-110085;
Phone No.- +91-11-27854478, e-Mail : designgroup.pk@gmail.com

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