

STATE EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR

Ref. No- 42

Patna- 23, Date- 05/03/2021

To,


1. Shri Murarijee Mishra,
Vijay Nagar, Near Temple,
Rukunpura, Patna - 800014
2. Shri Vijay Kumar Sinha, IFS (Retd.),
Prasad Bhawan, R. K. Path,
Pirmohani, Kadamkuan, Patna - 800 003.
3. Prof. Shardendu,
Department of Botany,
Patna Science College, Patna.
4. Dr. Samir Kumar Sinha,
Wildlife Trust of India,
F-13, Sector - 8, Noida, Uttar Pradesh - 201301
5. Dr. Amar Nath Verma,
10192 ATS Advantage, Ahinsha Khand - 1,
Near Habitat Centre, Indirapuram,
Ghaziabad - 201014.
6. Prof. Birendra Prasad,
Department of Botany,
Patna University,
Patna - 800 005.
7. Dr. Rakesh Kumar Singh,
G - 600, 12th Street, GAMA - II, Greater Noida (UP) - 201 310.
8. Dr. Dilip Kumar Paul,
Assistant Professor & Course Coordinator, M.Sc.
Environment Science & Management,
Post Graduation Department of Zoology,
Patna University, Patna, Bihar - 800 005

Sub :- Proceedings of meeting of State Expert Appraisal Committee held on 27.02.2021.

Sir,

Please find enclosed herewith proceedings of the State Expert Appraisal Committee (SEAC) meeting held on 27th February, 2021.

Yours sincerely,



(S. Chandrasekar)
Member Secretary
SEAC, Bihar

05/3/21

Proceedings of the State Expert Appraisal Committee (SEAC) meeting dated 27th February, 2021-

The meeting of SEAC was held through video conferencing on 27th February, 2021 as per schedule (letter No. 34, dated- 18.02.2021), and attended to in person by Chairman, Member Secretary and the following members.

1. Prof. Shardendu,
2. Dr. Amar Nath Verma,
3. Dr. Rakesh Kumar Singh,
4. Prof. Birendra Prasad,
5. Dr. Dilip Kumar Paul,
6. Dr. Samir Kumar Sinha

The remaining members participated through video link as under: -

7. Shri Vijay Kumar Sinha.

Proposals were considered as per agenda. Project Proponents along with their respective Consultants made presentation before the Committee. Agenda wise details are as under: -

Consideration for Environmental Clearance

1. Proposed "Viraat Ramayan Mandir" at Mauza:- Bahua Harbans, Kaithwalia, Siswa Narsingh, Block:- Kesaria & Kalyanpur, District:- East Champaran, State:- Bihar, Total Plot Area:- 2,39,196.04 m², Total Built-up Area:- 41,583.28 m² (File No. - SIA/8(a)/1273/2021, Online Proposal No.:- SIA/BR/MIS/197832/2021).
Proponent:- M/s Sri Mahavir Sthan Nyas Samity.
Consultant:- M/s Chandigarh Pollution Testing Laboratory.

Application along with filled up Form - I, Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 17th February, 2021 for obtaining Environmental Clearance (EC).

The Proponent and the Consultant presented the proposal before the Committee. The Project Proponent has submitted the proposal for greenery of the area based on a research paper published by National Botanical Research Institute, Lucknow, done by K. M. BALAPURE, J. K. MAHESHWARI & R. K. TANDON, which contains the name of plants / trees mentioned in the great epic Ramayana. The Committee observed that

the tree species and perennial shrubs shall be planted indicating their vernacular and botanical names. It was also directed that the existing trees shall be preserved as much as possible.

After discussion and due consideration the Committee decided to recommend the proposal for grant of Environmental Clearance as Annexure – I.

2. Proposed Government Medical College and Hospital at Village:-Bhopatpura, Tehsil:- Mairwa, District:-Siwan, State:- Bihar, Total Plot Area:- 1,01,790 m², Total Built-up Area:- 1,24,546.68 m²(File No. - SIA/8(a)/1274/2021, Online Proposal No.:- SIA/BR/MIS/191612/2021).

Proponent:- M/s Department of Health, Government of Bihar.

Consultant: -Chandigarh Pollution Testing Laboratory.

Application along with filled up Form - I, Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 17th February, 2021 for obtaining Environmental Clearance (EC).

The Proponent and the Consultant presented the proposal before the Committee. After discussion and due consideration the Committee decided to recommend the proposal for grant of Environmental Clearance as Annexure – II.

3. Proposed Bridge Construction Project of New 4- Lane Bridge (Parallel to the Existing Mahatma Gandhi Setu) with its approaches from km 0/000 to km 14.500 Km across river Ganga on NH - 19 at Patna in the State of Bihar by Ministry of Road Transport & Highways, Mahatma Gandhi Setu Division, Raja Ghat, CRPF camp, Patna, State- Bihar, Total Built-up area- 6,45,361 m²,(File No.:- SIA/8(b)/1234/2020), Online Proposal No.:- SIA./BR/NCP/54391/2020).

Proponent:- M/s Project Director, PIU- Ministry of Road Transport & Highways, Patna.

Consultant: -Chandigarh Pollution Testing Laboratory.

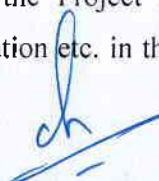
Application along with filled up Form - I and Form - IA and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 07th August, 2020 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide No. F. No SIA/8(b)/1234/2020, dated 21.09.2020. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 12.02.2021 for obtaining Environmental Clearance (EC).

The Proponent and the Consultant presented the proposal before the Committee. After discussion and due consideration the Committee decided to recommend the proposal for grant of Environmental Clearance as Annexure – III with additional conditions as mentioned below:-

- i. Before operationalization of project the nearby hotspot of the traffic congestion shall be removed / minimized. The Project Proponent shall coordinate with National Highway Authority of India (NHAI) the custodians of the concerned road to ensure free flow of traffic.
 - ii. Project Proponent must provide adequate utility facility like toilet etc., on both sides of the bridge.
 - iii. Free crossing of toll plaza for Official vehicles of Department of Environment, Forest and Climate Change, Govt. of Bihar and its associate offices.
 - iv. Mechanical sweeper must be used for cleaning the bridge/roads.
 - v. Project Proponent must install continuous Ambient Air Quality Monitoring Station at Hajipur, Vaishali in co-ordination with BSPCB. The Monitoring Station Shall be handed over to BSPCB for operation & maintenance.
4. Shivshiva Steel Pvt. Ltd., (Expansion Project), Mauza:-Raipura, Tehsil:- Fatuha, District:- Patna, State:- Bihar, Proposed Production:- 1,50,000 TPA to 4,00,000 TPA and Induction Furnace:- 3,00,000 TPA, (File No. - SIA/3(a)/448/17/II/19). **Online Proposal No.:-SIA/BR/IND/37579/2019).**
Proponent :-M/s Shivshiva Steel Private Limited.
Consultant :-PARAMARSHI (Servicing Environment And Development).

Application along with filled up Form - I and Pre-feasibility report in the prescribed format was submitted to SEIAA, Bihar on 24th July, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide No. F. No SIA/3(a)/448/17/II/19, dated 24.10.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 15.02.2021 for obtaining Environmental Clearance (EC).

It may be mentioned that the Project Proponent's request to utilize the monitoring data and Public Consultation etc. in the year 2017 – 18 had been allowed by the



Committee (MoM Ref. No. 275, dated 26.09.2019) to be utilized in preparation of the instant EIA report.

The Committee was informed that the Project Proponent has not submitted compliance report of Environmental Clearance conditions as per the direction of MoEF&CC, Regional Office, Ranchi who inspected the unit in year 2019.

The Committee considered the EIA report under para 7 (ii) of EIA Notification, 2006 and decided to recommend for grant of Environmental Clearance as annexure – IV subject to specific condition that if the Project Proponent does not submit the compliance report mentioned above within a period of 6 months, the Environmental Clearance granted shall stand revoked automatically.

Consideration for Amendment Environmental Clearance:-

5. Proposed 100 KLPD molasses based distillery along with 4.0 MW co-generation power plant at Village:-Bucheya, P.O.:-Sidhwali, Tehsil:- Sidhwalia, District:- Gopalganj, Bihar by Magadh Sugar and Energy Limited Unit : Bharat Sugar Mills (Distillery Division) **Online Proposal No.:- SIA/BR/IND2/170956/2020**.
Proponent:-M/s Magadh Sugar and Energy Limited Unit : Bharat Sugar Mills (Distillery Division).
Consultant :-Mantras Green Resources Limited.

In this proposal, the proponent has sought an amendment in the Environmental Clearance issued by the SEIAA Vide No. - SIA/5(g)/691/19, dated 05.05.2020. The basis of the amendment is to add a new area of 3.378 Ha, while retaining the area regarding which the Environmental Clearance dated 05/05/2020 is granted.

SEIAA referred back this matter (Ref. No. 276, dated 04.12.2020) and requested SEAC may reconsider the proposal as per EIA Notification, 2006.

The Committee accepted the request of SEIAA and allowed the Project Proponent to present their proposal, although in para 7 (II) of EIA Notification, 2006 there is no provision for amendment in Environmental Clearance granted for a proposal. Para 7 (II) relates to "Expansion or Modernization or Change of product mix in existing projects". Moreover, the Project Proponent was directed to submit a revised application for needful under EIA Notification, 2006 which they have not done till date.

Earlier in the meeting dated 26th December, 2020, the Committee decided that Member Secretary, SEAC, Bihar will conduct a site inspection as mentioned in the

proceedings of that meeting. Site visit has been done by Environmental Engineer, B.S.P.C.B and report has been sent by Member Secretary, SEAC, Bihar. The Committee considered the report. It was observed that there is no provision in EIA Notification for amendment of Environmental Clearance (per se) granted earlier. The Environmental Clearance granted was site specific and based on the EIA report submitted therefor. The instant proposal in the result, does not qualify to be considered and as such is recommended to be rejected for reasons mentioned above.

Sd/-
(Prof. Shardendu)
(Member, SEAC)

Sd/-
(Dr. Rakesh Kumar Singh)
(Member, SEAC)

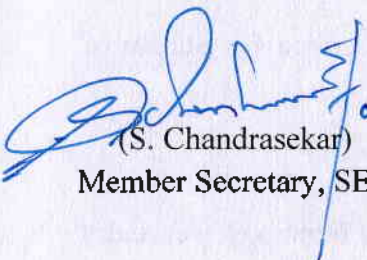
Sd/-
(Dr. Amar Nath Verma)
(Member, SEAC)

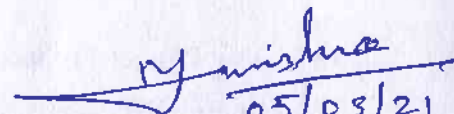
Sd/-
(Vijay Kumar Sinha)
(Member, SEAC)

Sd/-
(Dr. Dilip Kumar Paul)
(Member, SEAC)

Sd/-
(Prof. Birendra Prasad)
(Member, SEAC)

Sd/-
(Dr. Sameer Kumar Sinha)
(Member, SEAC)


(S. Chandrasekar)
Member Secretary, SEAC


(Murarijee Mishra)
Chairman, SEAC

Annexure – I (Viraat Ramayan Mandir - EC)

I. Statutory compliance:

1. The Project Proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The Project Proponent will obtain CTE from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.
3. All directions of the Airport Authority, Director of Explosives and Fire Department, etc. shall be complied with.
4. The Project Proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control Board.
5. The Project Proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
6. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities.
8. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
9. The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, GoI. strictly.
10. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold

out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.

11. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
12. Solar power plant or other solar energy related equipments shall be operated and maintained properly.
13. Provisions shall be made for the integration of solar water heating system.
14. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authority to whom violation of EC conditions can be reported.

Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3rd of the building height or 10 meters height whichever is more to prevent dispersion of particulate matter from the construction site.

15. Free Parking facility for visitors shall be provided within the project premises to avoid congestions on public road.
16. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Group & Anr. Vs Union of India & Ors).

II. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3rd of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter from the construction site.

Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

3. A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have low in sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
5. Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site. Plastic/tarpaulin sheet covers shall be provided for vehicles bringing all lose construction material e.g sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
6. All loose construction material e.g sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
7. Wet jet shall be provided for grinding and stone cutting.
8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
9. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.
10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.



11. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
12. For indoor air quality the ventilation provisions as per National Building Code of India shall be implemented.

III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wet land and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the Project Proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape, etc. would be considered as pervious surface.

7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing, etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
16. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the Project

Proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
22. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
23. Possibilities need to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction

IV. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during

construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per Energy Conservation Building Code(ECBC) specifications.
4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher.

Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste (M.S.W.) generated from project shall be obtained.
2. Proper composting / vermi-composting of municipal and biodegradable solid wastes (expected floral waste) 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).
3. All the floral waste shall be recycled after proper segregation from other biodegradable waste to make products like dhup batti etc.
4. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
5. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
6. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
7. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
8. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
9. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the Bihar State Pollution Control Board.

10. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
11. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.
12. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
13. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover:

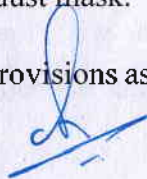
1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.
2. 1,33,662.825 m² (55.88 % of the total plot area) shall be kept under green belt cover within the project site.
3. All the affords shall be made not to fell any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport:

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDP FI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b. Traffic calming measures.
 - c. Proper design of entry and exit points.
 - d. Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India.



3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.
7. Ensure to create permanent housing facility to station at least two 3-4 fire tender vehicle with experienced man power within the developed premises to control fire in case of any eventualities.

X. Corporate Environment Responsibility:

1. The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms /conditions. The company shall have defined system of reporting infringements/deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
3. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose.

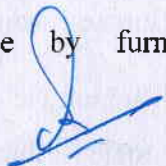
Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous:

1. The Project Proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded Environmental Clearance and the details of MoEF&CC/SEIAA, Bihar website where it is displayed.
2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. 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.
4. Rest room facilities shall be provided for service population.
5. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.
6. The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
7. The Project Proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during their presentation to the State Expert Appraisal Committee.
8. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulated Environmental Conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the

Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

10. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11. The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
12. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
13. Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
14. The Environmental Clearance granted on submitted basis of the layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.
15. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
16. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
17. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.



18. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
19. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
20. Environmental Clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.
21. 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.



Annexure – II (Govt. Medical College and Hospital - EC)

I. Statutory compliance:

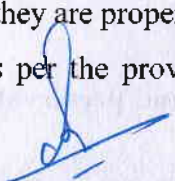
1. The project proponent shall obtain all necessary clearance / permission from all relevant agencies including competent town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The Project proponent will obtain CTE from the BSPCB before preparing site for construction if applicable and CTO before the operation phase.
3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening and other Natural calamities.
4. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied with.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
6. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be obtained.
8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed. Decentralized segregation facilities shall be created and composting facilities shall be developed.

10. The project proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.
11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection centre & mechanical composter etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors for which a written tie-up must be done with the authorized recyclers.
12. Bio-Medical waste generated in the hospital shall be handled and managed as per the provisions of Bio-Medical waste (Management & Handling) Rules, 2016. There shall be a facility for central storage of such wastes within the premises which shall be safe and well ventilated. Radioactive waste management program shall be adopted and implemented at the site in order to mitigate the effects coming out due to use of atomic radiation in different equipment's.
13. Hazardous waste/E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
14. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
15. Provisions shall be made for the integration of solar water heating system.
16. Environmental Clearance conditions must be displayed at prominent place which can be easily visible to public mentioning the address and contact number of authority to whom violation of Environmental Clearance conditions can be reported
17. Fencing of the project boundary by erecting 10 meter facade before start of construction activities

II. Air quality monitoring and preservation

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

2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common / criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5}) covering upwind and downwind directions during the construction period.
4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have lower in sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
5. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto 1/3rd of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
6. All loose construction material e.g sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
7. Wet jet shall be provided for grinding and stone cutting.
8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
9. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.



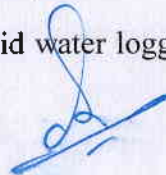
10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
11. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
12. For indoor air quality the ventilation provisions as per National Building Code of India shall be followed.
13. Real time continuous ambient air quality monitoring system (CAAQMS) with display unit at main entrance shall be installed in consultation with the SPCB to ensure linking of data to SPCB server. CAAQMS shall be functional before the operational phase as per National Ambient Air Quality parameters.

III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.

5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-laws provisions on rain water harvesting should be followed. If local bye-laws provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
16. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
22. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.



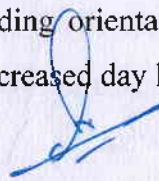
23. Possibilities needs to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction.

IV. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
4. Real time Ambient Noise level monitoring system shall be installed having consultation with SPCB before the operation phase of the project. The measured noise level value shall be displayed on the Main Entry Gate of the campus.

V. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc.




shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

4. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management:

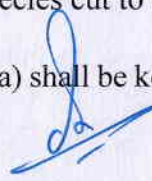
1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained
2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall 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).
3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.



5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6. Organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
8. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.
11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
12. Used CFLs and TFLs should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover:

1. No tree can be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Plantations to be ensured in the ratio of species cut to species planted.
2. 21,048.86 m² (20.67 % of the total plot area) shall be kept under green belt cover within the project site.



3. All the efforts shall be made not to fell any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport:

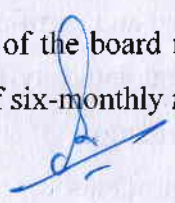
1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b. Traffic calming measures.
 - c. Proper design of entry and exit points.
 - d. Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. / competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India shall be followed.
3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility:

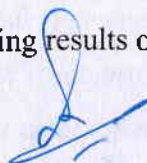
1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The Management shall have a well laid down environmental policy duly approved by the competent Authority. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.



3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the management shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous:

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC / SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. 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.
4. Rest room facilities shall be provided for service population.
5. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.
6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.



7. The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during their presentation to the State Expert Appraisal Committee.
8. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10. The project proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production / operation of the project.
11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
12. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA.
13. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
14. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
15. The EC granted on submitted basis of the layout plan of the proposed construction of buildings / establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which EC is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the EC accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of EC condition.

16. The SEIAA reserves the right to stipulate additional conditions if found necessary. The Management in a time bound manner shall implement these conditions.
17. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
19. Environmental clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.
20. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



Annexure – III (New 4 lane bridge parallel to MG Setu - EC)

I. Statutory compliance:

1. The Project Proponent will obtain CTE from the BSPCB before preparing site for construction; if applicable and CTO before giving occupancy.
2. The Project Proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Bihar State Pollution Control Board.
3. The Project Proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
4. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by Project Proponents from the respective competent authorities.
5. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
6. The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, GoI. strictly.
7. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter, etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors / recyclers for which a written tie-up must be done with the authorized vendors / recyclers.
8. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
9. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.

10. Environmental Clearance conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authority to whom violation of EC conditions can be reported.

Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3rd of the building height or 10 meters height whichever is more to prevent dispersion of particulate matter from the construction site.

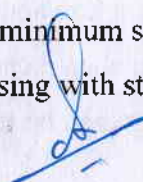
11. Construction of appropriate civil structure and creation of other facilities shall be undertaken to provide benefit of the person suffering from disability in accordance with Hon'ble Supreme Court of India order dated 15th December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Group & Anr. Vs Union of India &Ors).
12. Suitable structure shall be created to decongest traffic flow on spot appeared in air model on existing highway (near zero mile towards Fatua) before the operationalization of new four lane bridge on river Ganga.

II. Specific Conditions:-

I. Construction Phase

- (i) All necessary clearance as applicable to the project shall be obtained from the concerned authorities before initiating the project.
- (ii) Necessary mitigative measure against adverse impact to the water bodies that are to be affected shall be provided.
- (iii) Installation and operation of DG set, if any shall comply with the guidelines of CPCB.
- (iv) Provision shall be made for the housing of construction labour with all necessary infrastructure and facilities such mobile toilets, mobile STP, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after the completion of the Project.

- (v) All the top soil evacuated during construction activities should be stored for use in horizontal/landscape development within the project site.
- (vi) Disposal of muck during construction phase should not be created any adverse effect on river and the neighboring communities and the disposal and take necessary precautions for general safety and health aspects of people, only at approved sites with the approval of competent authority.
- (vii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to the prescribed air and noise emission standards and should be operated only during non-peak hours.
- (viii) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the Project Proponent if it was found that construction of the project has been started without obtaining Environmental Clearance.
- (ix) Necessary permission for tree felling, if any, from the concerned department shall be obtained before commencement of the project work and copies of the same shall be submitted to this Office Minimum of three times the number of trees to be cut shall be planted. It shall be ensured that the trees planted as a part of the afforestation shall be looked after by the proponent. Tree plantation shall be of the same species/local species and survival shall be monitored Transplantation of trees shall be carried out wherever possible.
- (x) During construction phase noise pollution should be minimized in the river for the safety of the Gangetic dolphins because they are very sensitive to noise pollution.
- (xi) On both flanks of the bridge fencing at suitable height by proper mesh should be provided so that garbage and other unwanted materials are not thrown in the Ganges.
- (xii) Number of pillars should be minimum so as to minimize siltation in Ganga, of source without compromising with structural design.



II. Operation Phase.

- i. Noise barriers shall be provided at appropriate locations particularly in the areas where the alignment passes through inhabited areas so as to ensure that the noise levels do not exceed the prescribed standards.

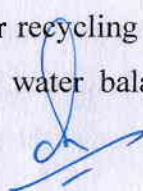
III. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. $1/3^{rd}$ of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
3. A Management Plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have low in sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
5. Dust, smoke& other air pollution prevention measures shall be provided for the building as well as the site. Plastic/tarpaulin sheet covers shall be provided for vehicles bringing all lose construction material e.g sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

6. All loose construction material e.g sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
7. Wet jet shall be provided for grinding and stone cutting.
8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
9. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.
10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection), Act 1986 prescribed for air and noise emission standards.
11. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
12. Real time continuous ambient air quality monitoring system (CAAQMS) with display unit at main entrance shall be installed in consultation with the SPCB to ensure linking of data to SPCB server. CAAQMS shall be functional before the operational phase as per National Ambient Air Quality parameters.

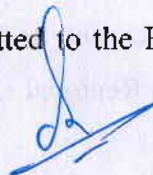
IV. Water quality monitoring and preservation:

1. Construction shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
2. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
3. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the Project



Proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.

4. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
5. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
6. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
7. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
8. All recharge should be limited to shallow aquifer.
9. No ground water shall be used during construction phase of the project.
10. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the Project Proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.



12. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
13. No sewage or untreated effluent water would be discharged through storm water drains.
14. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
15. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
16. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
17. Possibilities need to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction

V. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

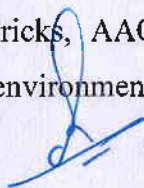
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
4. Real time Ambient Noise level monitoring system shall be installed having consultation with SPCB before the operation phase of the project. The measured noise level vale shall be displayed on the Main Entry Gate of the campus.

VI. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per Energy Conservation Building Code(ECBC) specifications.
4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VII. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste (M.S.W.) generated from project shall be obtained.
2. 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).
3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
8. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the Bihar State Pollution Control Board.
9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.



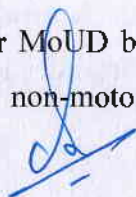
10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.
11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
12. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VIII. Green Cover:

1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.
2. All the affords shall be made not to fell any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.
3. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
4. Intensive avenue plantation shall be undertaken on mid verge and along both side of the road so that 90% survival shall be ensured throughout the project life.

IX. Transport:

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks.

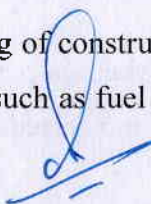


Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

- a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b. Traffic calming measures.
 - c. Proper design of entry and exit points.
 - d. Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
 3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

X. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India.
3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile

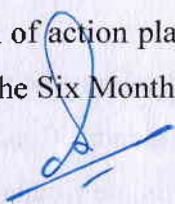


STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.
7. Ensure to create permanent housing facility to station at least two 3-4 fire tender vehicle with experienced man power within the developed premises to control fire in case of any eventualities.

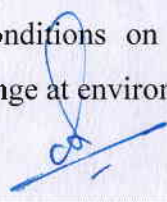
XI. Corporate Environment Responsibility:

1. The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms /conditions. The company shall have defined system of reporting infringements/deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
3. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six Monthly Compliance Report.



XII. Miscellaneous:

1. The Project Proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded Environmental Clearance and the details of MoEF&CC/SEIAA, Bihar website where it is displayed.
2. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. 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.
4. The Project proponent shall also submit six monthly reports on the status of compliance of the stipulated condition including results of monitored data (both in hard copies as well as the stipulated condition including results of monitored data (both in hard copies as well as by e-mail) to SEIAA, Bihar and regional office of MoEF&CC, Ranchi.
5. Rest room facilities shall be provided for service population.
6. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.
7. The Project Proponent shall upload the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
8. The Project Proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during their presentation to the State Expert Appraisal Committee.
9. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulated Environmental Conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.



10. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the Bihar State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11. The Project Proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
12. The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
13. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
14. Concealing factual data or submission of false/fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
15. The Environmental Clearance granted on submitted basis of the layout plan of the proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which Environmental Clearance is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the Environmental Clearance accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of Environmental Clearance condition.
16. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
17. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
18. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the

officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

19. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of Environmental Clearance, and Environmental Clearance conditions which affect general public at large along with name of authority to which violation of Environmental Clearance conditions can be reported.
20. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
21. Environmental Clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.
22. 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.



Annexure – IV (Shivshiva Steel Private Limited - EC)

I. Statutory compliance:

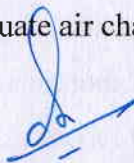
1. The Project Proponent shall obtain Consent to Establish/ Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the water (prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board / Committee.
2. The Project Proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water/from the competent authority concerned in case of drawl of surface water required for the project.
3. The Project Proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
4. The instant clearance will be treated revoked if the project proponent did not submit a letter issued by the regional office of MoEF&CC, Govt. of India with respect to 100% compliance of EC conditions issued against EC letter no. SIA/3(a)/448/17 dated 28th August 2018.

II. Air quality monitoring and preservation

1. The Project Proponent shall install 24x7 continuous emission monitoring system ensuring 98% data upload at process stacks to monitor stack emission with respect to standards prescribed in Environment(Protection) Rules 1986 vide G.S.R. 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended form time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2. The Project Proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (protection) Act, 1986 or NABL accredited laboratories.
3. The Project Proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released

(e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; large plants: Continuous)

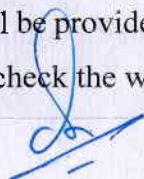
4. The Project Proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality/fugitive emissions to Regional Office of MoEF&CC/SEIAA, Zonal Office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
5. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.
6. The Project Proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
7. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
8. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines Collected in the pollution control devices and vacuum cleaning devices in the process after briquetting / agglomeration.
9. The Project Proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
10. The Project Proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.
11. The Project Proponent shall provide primary and secondary fume extraction system at all melting furnaces.
12. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.



13. Fixing water sprinklers in plant campus, and use water tanker for sprinkling water on approach road of the unit at least twice daily or as per requirement to minimize air pollution due to dust
14. Mist spraying system for dust suppression in the campus.

III. Water quality monitoring and preservation

1. The Project Proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305(E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (Case to case basis small plants; Manual; large plants; Continuous)
2. The Project Proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3. The Project Proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC/SEIAA, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
4. Adhere to 'Zero Liquid Discharge'.
5. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
6. The Project Proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R. 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
7. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.



8. The Project Proponent shall practice rainwater harvesting to maximum possible extent.
9. The Project Proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

1. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office of the Ministry as a part of six-monthly compliance report.
2. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB (A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

1. The Project Proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
2. Practice hot charging of slabs and billets/blooms as far as possible.
3. Ensure installation of regenerative type burners on all reheating furnaces.
4. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
5. Provide the Project Proponent for LED lights in their offices and residential areas.

VI. Waste management

1. Used refractories shall be recycled as far as possible.
2. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed dried, and briquetted and reused melting Furnaces.
3. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office and SEIAA, Bihar.

4. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016.
5. Kitchen waste shall be composted or converted to biogas for further use. *(to be decided on case to case basis depending on type and size of plant)*

VII. Green Belt

1. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. Plants of minimum 5 feet tall be planted in this rainy season i.e. (year 2019). The green belt shall inter alia cover the entire periphery of the plant.
2. The Project Proponent shall prepare GHG emissions inventory for the plant and shall submit the action plan for reduction of the same including carbon sequestration including plantation.

VIII. Public hearing and Human health issues

1. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
2. The Project Proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
3. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
4. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.



IX. Corporate Environment Responsibility

1. The Project Proponent shall comply with the provisions contained in this Ministry's OM vide F.NO. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements/ deviation / violation of the environmental/forest/ wildlife norms/ conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the SEIAA, Bihar as a part of six-monthly report.
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA, Bihar / Regional Office of MoEF&CC along with the Six Monthly Compliance Report.
5. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
6. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.

X. Miscellaneous

1. The Project Proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by

prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the Project Proponent's website permanently.

2. Entry inside the plant premises to all the workers/supervisor/Manager shall only be given after having all personal protective gears.
3. The Project Proponent shall maintain regularly the material balance and shall report and shown as and when asked for.
4. The copies of the Environmental Clearance shall be submitted by the Project Proponents to the heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
5. The Project Proponent shall upload the status of compliance of the stipulated Environment Clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
6. The Project Proponent shall monitor the criteria pollutants level namely; PM_{2.5}, PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
7. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
8. The Project Proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board/SEIAA as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
9. The Project Proponent shall inform the Regional Office as well as the SEIAA/Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

11. The Project authorities must strictly adhere to the stipulations made by the State Pollution control Board and the State Government.
12. The Project Proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during public Hearing and also that during their presentation to the State Expert Appraisal Committee.
13. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
14. Concealing factual data or submission of false / fabricated data may result in revocation of this Environmental Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
15. The SEIAA, Bihar may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
16. The SEIAA, Bihar reserves the right to stipulate additional conditions If found necessary. The Company in a time bound manner shall implement these conditions.
17. The Regional Office of this MoEF&CC / SEIAA shall monitor compliance of the stipulated conditions. The Project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and the public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/ High Courts and any other Court of Low relating to the subject matter.
19. The Environmental Clearance shall remain valid for seven years from the date of its issuance.
20. 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.