

**STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR**  
2<sup>nd</sup> Floor, BELTRON Bhawan, Shastri Nagar, Patna – 800023.

Ref. No. - 294

Patna Dated: - 08/09/2023

**MINUTES OF 26<sup>th</sup> MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE (SEAC), BIHAR CONSTITUTED ON 12.08.2021**

VENUE: SEIAA Office

DATE: 02<sup>nd</sup> September 2023

**Minutes/Proceeding of the Meeting**

- 1. Opening Remarks of the Chairman:** The Chairman and Members extended a warm welcome to each other and participants of the meeting. Thereafter, the meeting was opened for the proceedings as per the agenda adopted for the meeting.
- 2. Consideration of Proposals:** The SEAC considered the proposals received as per the agenda adopted for the 26<sup>th</sup> meeting (addendum) (26/2023) vide Ref. No. 286 dated- 01.09.2023. The key points of the deliberations held were as follows.
- 3.** With regard to the proposals submitted for the real-estate/ apartment/ residential building projects, Hospital. industry, etc. and various issues concerning the green belt area/greenery, human health hazards, and status of Waste Management, etc. were thoroughly discussed and scrutinized.

**Consideration of Environmental Clearance Proposal**

**AGENDA ITEM NO. 01**

**Proposed expansion of All India Institute Of Medical Sciences (AIIMS) Campus And AIIMS Residential Campus Project at Block :- Phulwari Sharif, District:- Patna, State:- Bihar; by M/s All India Institute Of Medical Sciences (AIIMS) [Total Plot**

**Area:- 4,06,709.07 m<sup>2</sup>, Total Built-up Area:- 3,24,456.94 m<sup>2</sup> (Proposed Built-up Area:- 1,35,800.94 m<sup>2</sup> & Existing Built-up Area:- 1,88,656 m<sup>2</sup>)] – Reg. Environmental Clearance,**

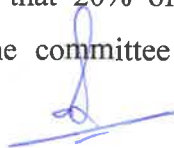
**(File No.: SIA/8(b)/2432/2023, Proposal No.: SIA/BR/INFRA2/442290/2023).**

**Environment Consultant:** M/s Rian Enviro Private Limited.

Application along with filled up Form – I, Form – I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 05<sup>th</sup> June, 2023 for obtaining Term of Reference (ToR). ToR was issued by SEIAA, Bihar vide SIA/8(b)/2432/2023, dated 07.07.2023. Final EIA report in the prescribed format was submitted to SEIAA, Bihar on 31<sup>st</sup> August, 2023 for obtaining Environmental Clearance (EC).

The Project Proponent along with the environmental consultant M/s Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on the discussion, the committee found their proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for the grant of Environmental Clearance subject to the following additional specific conditions along with the standard conditions as mentioned in Annexure "A".

1. 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. 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 face mask
2. No sewage or untreated effluent water should be discharged through storm water drains.
3. Provide solar panels over minimum 30% of the total rooftop area (open terrace).
4. The project proponent install roof top rain water harvesting facility in the residential buildings in the housing colony.
5. Tree Plantation in three-rows should be raised all around the entire campus.
6. The Project Proponent intimated that 20% of plot area has been earmarked for development of Green Zone. The committee directed the Project Proponent to



- undertake block plantation over the area/ areas earmarked under green zone with local fruit bearing and flowering species of large crown so as to host avi-faunas ( birds ) and provide shade.
7. Internal Traffic management should be kept smooth by segregating traffic and parking lots for two wheelers, cars and buses and allowing only ambulances and other emergency services/vehicles to move beyond the parking area. Separate pedestrian walk ways with no vehicle access should be provided for the movements of the attendants and Staffs/Students . Battery operated internal transport arrangement from the parking lot to various departments should be provided.
  8. The project may establish an Environment Monitoring cell comprising of executives from different department. This shall review the status of implementation and compliance to various statutory clearances periodically and report to the Director of the institution on half yearly basis and final report shall be submit to with six monthly compliance report to SEIAA, Bihar and MoEF&CC ,Integrated Regional office , Ranchi.

**Consideration of Terms of Reference Proposal**

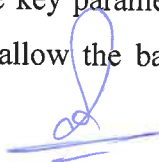
**AGENDA ITEM NO. 01**

**Proposed Metallurgical Project “Vistar Concast Private Limited” at Mauza:- Raipura, Near Industrial Area, Block:- Fatuha, District:- Patna, State:- Bihar; by M/s Vistar Concast Private Limited [Proposed Production Capacity – 3,00,000 TPA of MS Billet 4 (Four) Induction furnace capacity 20 MT of each] – Reg. Terms of Reference. (File No.: SIA/3(a)/2468/2023, Proposal No.: SIA/BR/IND1/441825/2023).**

**Environment Consultant:** M/s Rian Enviro Private Limited.

Application along with filled up Form - I and Prefeasibility Report in the prescribed format was submitted to SEIAA, Bihar on 31<sup>st</sup> August, 2023 for obtaining Terms of Reference (ToR).

The Project Proponent along with environmental consultant M/s Rian Enviro Private Limited. made a presentation on the key parameters and salient features of the project and consultant requested to committee allow the baseline data collected during the period of



March to May, 2022 for the preparation of EIA report of M/s Kaalendi Venture LLP. M/s Kaalendi Venture LLP situated around 300 meter from proposed site.

The Committee accepted their request to allow the use of baseline data collected during the period of March to May, 2022 for the preparation of EIA report. Based on the discussion, the Committee found their presentation and proposal satisfactory and acceptable, and allow to use baseline data for preparation of EIA report hence the Committee decided to recommend the proposed proposal for the grant of Terms of Reference with standard conditions as contained in Annexure "B".

### **AGENDA ITEM NO. 02**

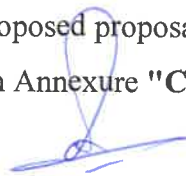
**Proposed Residential cum Commercial Building Project "Megapolis Housing" at Mauza:- Lakhnibigha, Sarari, Block:- Danapur, District:- Patna, State:- Bihar; by M/s Mundeshwari Multicon Private Limited [Total Plot Area:- 48393.05 m<sup>2</sup>, Total Built-up Area:- 285667 m<sup>2</sup>] – Reg. Terms of Reference.**

**(File No.: SIA/8(b)/2461/2023, Proposal No.: SIA/BR/INFRA2/439080/2023).**

**Environment Consultant:** M/s Rian Enviro Private Limited.

Application along with filled up Form – I, Form – I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 3<sup>rd</sup> August, 2023 for obtaining Terms of Reference (ToR).

Earlier in the meeting dated-05.08.2023, the Project Proponent requested the committee to consider the proposal in the next SEAC meeting due to revision in the proposed plan. Project Proponent has submitted the revised plan dated 21.08.2023 which was placed before the committee and the Project Proponent along with their environmental consultant made a presentation of the project and the consultant requested the committee to allow the baseline data collected during the period of October to December, 2020 for the preparation of EIA report. For a same project and allow to use the said baseline data for the preparation of EIA report. Therefore after discussion the Committee decided to recommend the proposed proposal for the grant of Terms of Reference with standard conditions as mentioned in Annexure "C".



LIST OF PARTICIPANTS IN 26<sup>th</sup> MEETING OF SEAC, BIHAR HELD ON 02<sup>nd</sup> SEPTEMBER, 2023

Sl. No.	Name	Designation	Attended on 02.09.2023
1.	Dr. Gopal Sharma	Chairman	Present
2.	Dr. Ramakar Jha	Member	Present
3.	Dr. Bibha Kumari	Member	Present
4.	Dr. Anshumali	Member	Present through VC
5.	Dr. Aditya Mohanty	Member	Present
6.	Shri Mokhtarol Haque	Member	Present
7.	Shri Ajit Samaiyar	Member	Present
8.	Shri Ranjan Kumar	Member	Absent
9.	Shri S. Chandrasekar	Member Secretary	Present

Signature(s) of the Members Present

Sd/-  
(Dr. Ramakar Jha)  
Member, SEAC

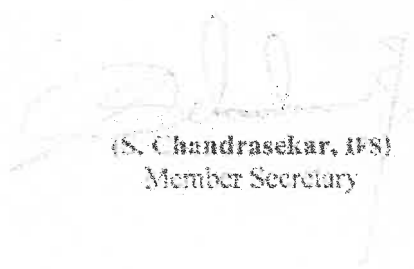
Sd/-  
(Dr. Bibha Kumari)  
Member, SEAC

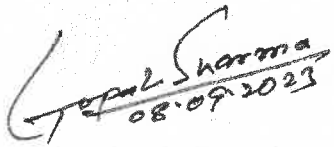
Sd/-  
(Ajit Samaiyar)  
Member, SEAC

Sd/-  
(Dr. Aditya Mohanty)  
Member, SEAC

Sd/-  
(Mokhtarol Haque)  
Member, SEAC

Sd/-  
(Dr. Anshumali)  
Member, SEAC

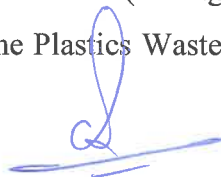
  
(S. Chandrasekar, M.S.)  
Member Secretary

  
(Dr. Gopal Sharma)  
Chairman

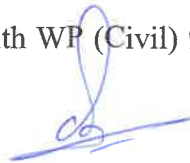
## **Annexure – A (AIIMS - EC)**

### **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. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightening, etc.
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 Bihar State Pollution Control Board.
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 should 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.

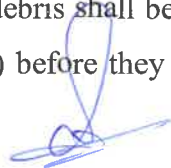


10. The Project Proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power, GoI. strictly.
11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection 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.
12. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
13. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
14. Provisions shall be made for the integration of solar water heating system.
15. 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 authorities to whom violation of EC conditions can be reported.
16. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto.  $1/3^{\text{rd}}$  of the building height or 10 meters height whichever is more to prevent dispersion of dust particulate (fugitive emission) matter from the construction site.
17. 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 15<sup>th</sup> December 2017 in Writ Petition (Civil) 292 of 2006 with WP (Civil) 997 of 2013 (Disabled Rights Grout & 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 1/3<sup>rd</sup> of the building height or upto 10 meters height whichever is more to prevent dispersion of particulate matter (fugitive emission) 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.
5. Dust, smoke& other air pollution prevention measures shall be provided for the building as well as 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



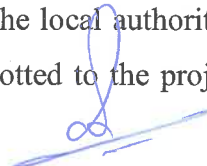


and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.

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. 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.

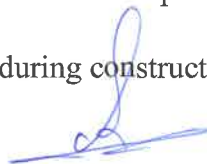
### **III. Water quality monitoring and preservation:**

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

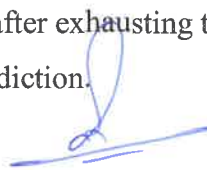


balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

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. 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 into municipal drain.
17. No sewage or untreated effluent water would be discharged through storm water drains.
18. 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.
19. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
20. 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.
21. 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.
22. 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.

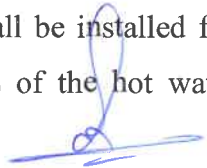


**IV. Noise monitoring and prevention:**

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. 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:**

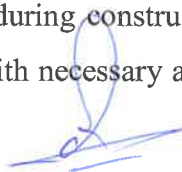
1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.
3. Concept of passive solar design that minimize 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-law's 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:**

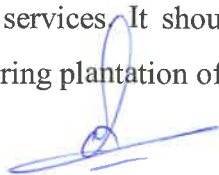
1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste (M.S.W.) generated from project shall be obtained.
2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Wastes Management, 2016 (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 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 27<sup>th</sup> August, 2003 and 25<sup>th</sup> 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 should be felled unless exigencies demand. Wherever absolutely necessary, tree translocation shall be done with prior permission from the concerned regulatory authority. Old trees should be retained/ translocated 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. 81341.8 Sqm. 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, it may be translocated with prior permission from concerned local Authority. In case of felling, plantations to be ensured 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 re-applied during plantation of the proposed vegetation on site.

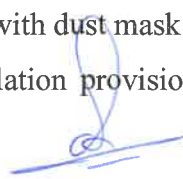


## **VIII. Transport:**

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.
  - e) Proper signages.
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:**

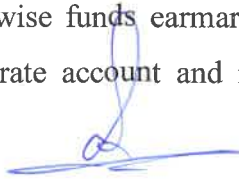
1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code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

**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 1<sup>st</sup> 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. 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 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/ Ministry, Regional Office along with the Six-Monthly Compliance Report.

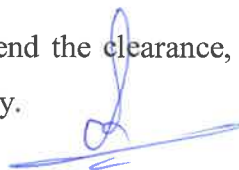
**XI. Additional Conditions:-**

1. Provide Waste water drain, rainwater drain and water supply pipe separately. Nothing should be drained outside the campus through underground pipes and nothing should be pumped to groundwater. All the sewage drains shall be covered.
2. Provide Safety measures (Fire, disaster, flood, etc.), /medical facilities and arrangement for physically challenged persons.

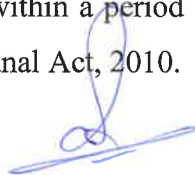
**XII. Miscellaneous:**

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. Rest room facilities shall be provided for service population.
5. 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.
6. 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.

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 Bihar State Pollution Control Board 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 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.
10. The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
11. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Bihar.
12. 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.
13. The Environmental Clearance granted on the basis of submitted 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.
14. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.



15. The SEIAA reserves the right to stipulate additional conditions if found necessary which shall be implemented in a time bound manner.
16. 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.
17. Project Proponent shall erect a signboard on his project site and display information regarding name of the project, Environmental Clearance letter 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.
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 10 years or completion of project whichever is earlier.
20. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



## **Annexure – B [Metallurgy project – ToR]**

### **A. STANDARD TERMS OF REFERENCE (TOR)**

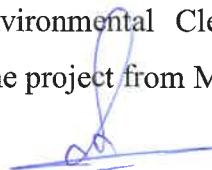
#### **1. Executive Summary.**

#### **2. Introduction.**

- i. Details of the EIA Consultant including NABET accreditation.
- ii. Information about the project proponent.
- iii. Importance and benefits of the project.

#### **3. Project Description.**

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. Details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities.
- vi. Details of Emission, effluents, solid waste, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contractual).
- viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided.
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
  - a) Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached

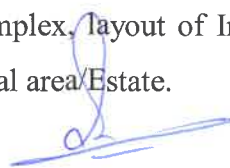


as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing Environmental Clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.

- b) In case the existing project has not obtained Environmental Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification, 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

#### 4. Site Details.

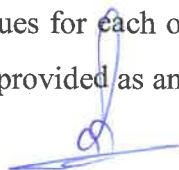
- i. Location of the project site with description of surround covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether alternative sites were considered.
- ii. A toposheet of the study area of radius of 10 km and site location on 1:50,000/1:25,000 scale on an A<sub>3</sub>/A<sub>2</sub> sheet. (including all eco-sensitive areas and environmentally sensitive places).
- iii. Details w.r.t. option analysis for selection of site.
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.



- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area).
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area.
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects).
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy.

## **5. Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micrometeorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

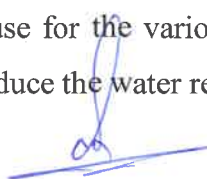


- iv. Surface water quality of nearby River (100meter upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. A detailed report shall be submitted using suitable model used to predict increase in air pollutants due to increased traffic load due to proposed project.
- xi. Detailed description of flora and fauna (terrestrial, avifauna and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xii. Socio-economic status of the study area.

## **6. Impact and Environment Management Plan.**

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body.

- iii. Ground water classification as per the Central Ground Water Authority and NOC from CGWB.
- iv. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyer-cum-rail transport shall be examined.
- v. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- vi. Details of stack emission and action plan for control of emissions to meet standards.
- vii. Measures for fugitive emission control.
- viii. Details of hazardous waste generation and their storage, utilization and management. Copies of MoU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- ix. Proper utilization of fly ash, shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- x. An action plan for the three tier plantation to develop a green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- xi. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.





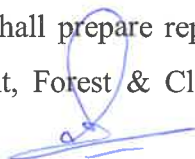
- xii. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xiii. Action plan for post-project environmental monitoring shall be submitted.
- xiv. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

## **7. Occupational health**

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

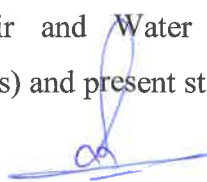
## **8. Corporate Environment Policy**

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. The Project Proponent shall prepare report with the provisions contained in Ministry of Environment, Forest & Climate Change OM Vide F. No. 22-



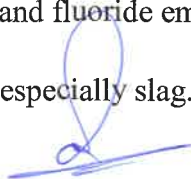
65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibilities.

- iii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iv. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - v. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.
9. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
- 10. Enterprise Social Commitment (ESC)**
- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
11. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.



## **SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR METALLURGICAL INDUSTRIES (FERROUS & NON FERROUS)**

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
3. Details on installation/activation of capacity meters with recording with proper calibration system.
4. Details on toxic metals including mercury, arsenic and fluoride emissions.
5. Details on stack height requirement for integrated steel.
6. Details on ash disposal and management -Non-ferrous metal.
7. Complete process flow diagram describing production of lead/zinc/copper/ aluminum, etc.
8. Raw materials substitution or elimination.
9. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation.
10. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminum.
11. Details on solvent recycling.
12. Details on precious metals recovery.
13. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
14. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
15. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
16. Trace metals in waste material especially slag.

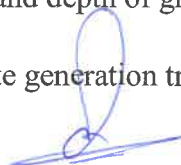


17. Plan for trace metal recovery.
18. Trace metals in water.
19. A tabular chart with index for point wise compliance of above ToR.

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### **Annexure – C [Township and Area Development – ToR]**

1. Examine details of land use as per Master Plan and land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images. Check on flood plain of any river.
2. Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/villages and present status of such activities.
3. Examine baseline environmental quality along with projected incremental load due to the project.
4. Environmental data to be collected in non-monsoon one season in relation to the project development will be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
5. Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area.
6. Submit the details of the tree to be felled for the project.
7. Submit the present land use and permission required for any conversion such as forest, agriculture, etc.
8. Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.
9. Ground water classification as per the Central Ground Water Authority.
10. Examine the details of Source of water, water requirement, use of treated waste water and prep area water balance chart.
11. Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
12. Examine soil characteristics and depth of ground water table for rainwater harvesting.
13. Examine details of solid waste generation treatment and its disposal.



14. Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption.
15. DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
16. Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
17. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
18. Examine the details of transport of materials for construction which should include source and availability.
19. Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
20. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
21. Prepare a plan for creation of designated greenbelt area (green island) work of demolition of old structures should start from the opposite end of the green island so that wild fauna sheltered therein may take refuge in the island.
22. Prepare a plan regarding Storm Water Management, Sewage Treatment Plant (STP), Effluent Treatment Plant (for the effluents generated from the laboratories) Groundwater recharge points, Rainwater Harvesting, Biomedical Waste Management Hazardous Waste Management, Biogas, Manure, Solar energy, etc.
23. Prepare a plan regarding existing flora and fauna in the campus for its conservation.



24. Submit a copy of the contour map with slopes, drainage pattern of the site, and the surrounding area together with obstruction of the same by project, if any.
25. Submit species wise details GBH (Girth at Breast Height), of the trees to be felled for the project.
26. No tree should be felled. Instead all the trees should be translocated at a suitable site within the Project Premises."Effort should be made to conserve the trees by modifying the layout/design, particularly the older trees which often are habitats of many activity nesting fauna. If inevitable, felling should be planned with permission and under the guidance of Forest Department."
27. Examine separately the details for construction and operation phase both for Environment Management Plan and Environmental Monitoring plan with cost.

