

STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR

2nd Floor, BELTRON Bhawan, Shastri Nagar, Patna – 800023.

Ref. No. -

Patna Dated: -

**MINUTES OF 14th MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE (SEAC), BIHAR CONSTITUTED ON 12.08.2021**

VENUE: SEIAA Office

DATE: 11th December, 2022

Minutes/Proceeding of the Meeting

- 1. Opening Remarks of the Chairman:** The Chairman and Members extended warm welcome with each other and other participants of the meeting. Thereafter, the meeting was opened for the proceedings as per the agenda adopted for the meeting.
- 2. Confirmation of Minutes of 13th Meeting (13/2022)** vide Ref. No.- 412, dated 20.10.2022 **of State Expert Appraisal Committee held on 20th October, 2022.** The State Expert Appraisal Committee, hereinafter called the SEAC, was informed that no representation has been received regarding projects considered in meeting held on 20th October, 2022. Minutes of meeting of the said SEAC was confirmed.
- 3. Consideration of Proposals:** The SEAC considered the proposals received as per the agenda adopted for 14th meeting (14/2022) vide ref no. 463 dated- 07.12.2022. The key points of deliberations held were as follows.
4. With regard to the proposals submitted for the real-estate/ apartment/ residential building projects, 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 Alaknanda Metals Private Limited (Expansion Project), Mauza:- Simlimurarpur, Village:- Kothia, P.S:- Didarganj, Tehsil:- Patna Rural, District:- Patna, State:- Bihar; with total production capacity for MS Billet of 1,35,360 MTPA, for Induction Furnace of 1,35,360 MTPA, & Structure of 1,80,000 MTPA – Reg. Environmental Clearance

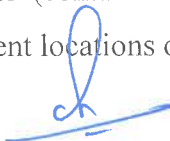
(File No.: SIA/3(a)/1713/2021, Proposal No.: SIA/BR/IND1/406346/2022).

Environment Consultant: M/s PARAMARSH (Servicing Environment and Development).

Application along with filled up Form - I, Pre-feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 17th August, 2022 for obtaining Terms of Reference (ToR). ToR has been granted by SEIAA, Bihar vide F. No. SIA/3(a)/1713/2021, dated 28.12.2021 and Public Hearing was conducted by Bihar State Pollution Control Board, Patna on dated 26.08.2022. Final EIA Report in the prescribed format was submitted to SEIAA, Bihar on 17th November, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. Based on the discussion, the committee found their presentation and proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Environmental Clearance subject to the following additional conditions along with standard condition in Annexure "A".

1. Three tier plantations shall be developed on 33% of total plot area of the project all around the PLANT with additional rows of plants across the prevailing wind direction at the site. Block plantation should be raised and maintained even inside the project area if land is available out of stipulated green belt area. Selection of suitable species of plant shall be made as per CPCB guidelines in consultation with concerned Forest Division of the State Forest Department;
2. The Proposed green belt area should be permanently barricaded for its exclusive maintenance as a green belt area.
3. The important mobile number (contact number) in case of emergency should be displayed at different convenient locations of the industry, including at the entry gate;



4. Provide enough First Aid Box and other emergency medicine, stretcher, Mask, Sanitizer, etc away from the plant area at the entry and exit gates and at appropriate places.

AGENDA ITEM NO. 02

Proposed Residential Building Project "Kirti Raman Residency" at Mauza:- Saguna, Thana:- Danapur, District:- Patna, State:- Bihar; by M/s Kirti Sagar Construction Private Limited [Total Plot Area:- 7,753.65 m², Total Built-up Area:- 29,909.96 m² (Existing Built-up Area:- 19,359.36 m² + Proposed Built-up Area:- 10,550.60 m²)] – Reg. Environmental Clearance (File No.: SIA/8(a)/2051/2022, Proposal No.: SIA/BR/INFRA2/402400/2022).

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 01st December, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with its environmental consultant M/s. Rian Enviro Private Limited, made a presentation on the key parameters and salient features of the project. Based on discussion, the Committee observed that the proposed location of STP is not proper. Accordingly the Committee gave directions as under:-

1. Submit revised plan relocating STP at proper place as suggested during the discussion.
2. A sub-committee of SEAC shall visit the said site with prior intimation to the Project Proponent.

Consideration of Terms of Reference Proposal

AGENDA ITEM NO. 03

Proposed Metallurgical Project "Magadh Metal Industries Private Limited" at Mauza:- Simlimurarpur, Abdul Rahmanpur Road, Thana:- Didarganj, Tehsil:- Patna Rural, District:- Patna, State:- Bihar; by M/s Magadh Metal Industries Private Limited [Proposed production capacity MS Billet 3,50,000 TPA] – Reg. Terms of Reference (File No.: SIA/3(a)/2049/2022, Proposal No.: SIA/BR/IND1/408155/2022).

Environment Consultant:-M/s- PARAMARSH (Servicing Environment and Development)



Application along with filled up Form - I, Pre-feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 01st December, 2022 for obtaining Terms of Reference (ToR).

The Project Proponent along with environmental consultant PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. Based on the discussion, the committee found that the KML file uploaded by the project proponent overlaps with the KML file of adjacent existing industry. Accordingly the Committee sought as under:-

- I. Submit a corrected KML file separating the proposed site from the adjacent existing industry keeping in view the sufficiency of land requirement for the proposed project.

AGENDA ITEM NO. 04

Proposed Residential cum Commercial Building Project "Ujjwal City" at Mauza:- Sohagi, Thana:- Gaurichak, Tehsil:- Sampatchak, District:- Patna, State:- Bihar; by M/s Ujjwal Homes Private Limited [Total Plot Area:- 10,733.48 m², Total Built-up Area:- 47,847.02 m²] – Reg. Terms of Reference (File No.: SIA/8(a)/2050/2022, Proposal No.: SIA/BR/INFRA2/407958/2022).

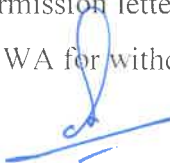
Environment Consultant: M/s PARAMARSH (Servicing Environment and Development).

Application along with filled up Form - I, Pre-feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 01st December, 2022 for obtaining Terms of Reference (ToR).

The Project Proponent along with environmental consultant PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. During the presentation it was submitted by the Project Proponent that it is a case of violation because the construction work has been initiated without obtaining prior EC and thus they have filled the application under the violation category and requested for TOR to carry out EIA.

Based on the discussion, the committee observed that the KML file uploaded by the project proponent extends over to the adjacent plot beyond the area of the instant project site. The committee sought as follows :-

1. Copy of application filed / permission letter for obtaining NoC from concerned state Ground water department /CGWA for withdrawal Ground water.



2. Submit a corrected KML file.
3. Submit the plan regarding relocation of Sewage Treatment Plant.
4. Forest Clearance for utilization of strip of roadside forest land to be used as approach road to the project site.

AGENDA ITEM NO. 05

Proposed Metallurgical Project "Kaalendi Ventures L.L.P." at Mauza:- Khirodharpur, Tehsil:- Fatwah, District:- Patna, State:- Bihar; by M/s Kaalendi Ventures L.L.P. [Existing production capacity MS pipe (Tube) - 60,000 MTPA, Shutter Profile - 30,000 MTPA, Proposed expansion capacity MS pipe (Tube) - 20,000 MTPA, Shutter Profile - 2,000 MTPA, TMT Bar - 68,000 MTPA, MS Billet - 90,000 MTPA] – Reg. Terms of Reference

(File No.: SIA/3(a)/2048/2022, Proposal No.: SIA/BR/IND/83083/2022).

Environment Consultant: M/s Rian Enviro Private Limited.

Application along with filled up Form - I, Pre-feasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 17th November, 2022 for obtaining Terms of Reference (ToR).

The Project Proponent along with environmental consultant 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 presentation and proposal satisfactory and acceptable, hence the Committee decided to recommend the proposed proposal for grant of Terms of Reference subject to the following additional conditions along with the standard conditions in Annexure "B".

1. Submit a copy of application submitted to competent authority / agency with regard to supply of Piped Natural Gas (PNG) gas pipe line;
2. Plantation details (Existing/Proposed) along with species to be used, capital and recurring expenditure for maintenance of the same.
3. Layout plan clearly earmarking space for development of peripheral green belt.

AGENDA ITEM NO. 06

Proposed construction of new 6-Lane H.L./Extra Dose Cable Bridge on River Ganga parallel to Western side of Existing Digha – Sonapur Rail-cum-Road Bridge and its

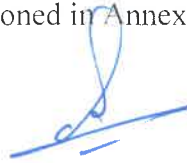
approaches at Patna in the State of Bihar at Digha Diyara under Patna Sadar, Panapur under Danapur Tehsil at Patna side & Pahleja, Gangajal, Chaursiya at Sonapur at Saran side of State:- Bihar; by M/s Ministry of Road Transport & Highway (office of PIU Digha) – Reg. Terms of Reference

(File No.: SIA/8(b)/2041/2022, Proposal No.: SIA/BR/MIS/79510/2022).

Environment Consultant: M/s P & M Solution.

Application along with filled up Form - I, Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 22nd July, 2022 for obtaining Terms of Reference (ToR).

The SEAC inspected the site visit on 17.09.2022. Earlier in the meeting dated-20.10.2022, the committee had directed the Project Proponent to submit documents as mentioned in the proceeding of that meeting. Project Proponent has submitted the compliance of above meeting which was placed before the committee and the Project Proponent along with environmental consultant made a presentation and they requested to consider baseline data for Months of October to December 2022, the same was accepted, accordingly the Committee decided to recommend the proposed proposal for grant of Term of Reference with conditions as mentioned in Annexure "C".



LIST OF PARTICIPANTS IN 14th MEETING OF SEAC, BIHAR HELD ON 11th DECEMBER 2022

Sl. No.	Name	Designation	Attended on 11.12.2022
1.	Dr. Gopal Sharma	Chairman	Present
2.	Dr. Ramakar Jha	Member	Present
3.	Dr. Bibha Kumari	Member	Present
4.	Dr. Anshumali	Member	Absent
5.	Dr. Aditya Mohanty	Member	Present
6.	Shri MokhtarulHaque	Member	Present
7.	Shri Ajit Samaiyar	Member	Present through video link
8.	Shri Ranjan Kumar	Member	Absent
9.	Shri S. Chandrasekar	Member Secretary	Present

Signature(s) of the Members Present

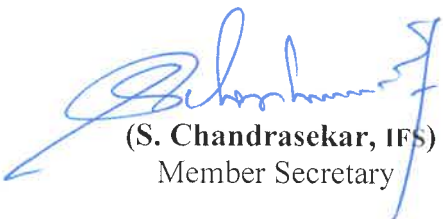
Sd/-
(Dr. Ramakar Jha)
Member

Sd/-
(Dr. Bibha Kumari)
Member

Sd/-
(Mokhtarul Haque)
Member

Sd/-
(Dr. Aditya Mohanty)
Member

Sd/-
(Ajit Samiyar)
Member


(S. Chandrasekar, IFS)
Member Secretary

Sd/-
(Dr. Gopal Sharma)
Chairman

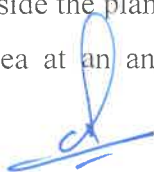
Annexure – A (Alakhnanda Metals - EC)

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.

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 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 120⁰ 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 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.
2. 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.
3. Adhere to 'Zero Liquid Discharge'.
4. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
5. 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.
6. 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.
7. The Project Proponent shall practice rainwater harvesting to maximum possible extent.
8. 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. The green belt shall inter alia cover the entire periphery of the plant.



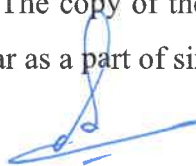
2. The Project Proponent shall prepare GHG emissions inventory for the plant and shall submit the action plan for reduction of the same including carbon sequestration including plantation.

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.



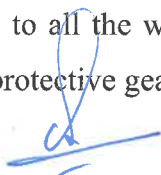
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility 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 par 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. Special Conditions:-

1. Regular water sprinkling shall be done on peripheral roads used for transportation of raw material and finished products within 1 KM from the proposed plant boundary to minimize air pollution during operation phase.
2. Plantation along the road and footpath as suggested in the meeting by increasing Green Belt Develop the 33% green belt area of the total project plot area.

XI. Miscellaneous

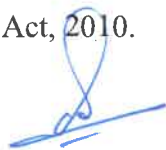
1. The Project Proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language 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 ten 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.



Annexure – B (Kaalendi Ventures - 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.

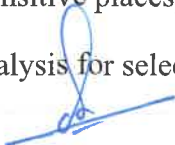
- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. Details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with 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. Production of a report / certificate from concerned authority enforcing Factory Act regarding suitability of existing unit / plant for proposed expansion mentioning whether existing plant is a satisfactory compliant of Factory Act.
- x. The proposal of the expansion of capacity to include thorough renovation / up-gradation of all existing infrastructure of the unit consisting development

/construction of First aid center/dispensary room for workers, development of facilities (toilets/urinals/washing rooms, canteen etc.)

- xi. Hazard identification and details of proposed safety systems.
- xii. Submit a copy of application submitted to competent authority / agency with regard to supply of PNG gas pipe line.
- xiii. 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 A₃/A₂ 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 (10 km 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 5 km 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.

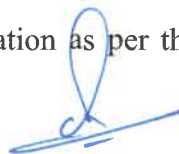
5. Environmental Status

- 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. Surface water quality of nearby River (100 meter upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

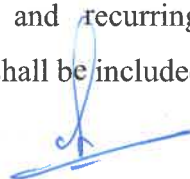
- iii. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- iv. Ground water monitoring at minimum at 8 locations shall be included.
- v. Noise levels monitoring at 8 locations within the study area.
- vi. Soil Characteristic as per CPCB guidelines.
- vii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- viii. 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.
- ix. 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.
- x. 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 conveyor-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. Arrangement of land/alternative sites for green-belt development inside unit or in the proximity of unit.
- xi. Submit 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.
- xii. 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.
- xiii. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.



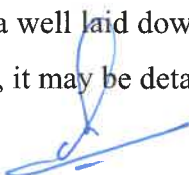
- xiv. Action plan for post-project environmental monitoring shall be submitted.
- xv. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

7. Occupational health

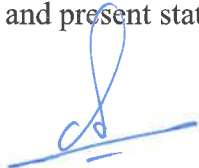
- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & 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.
- v. Making provisions for all personal safety/security related gears (shoes /hats/ helmets/ jacket/ gloves, specks, ear plugs etc.) for all workers and enforcing use of the same.

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 1st 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 Consultation 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/ aluminium, 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 aluminium.
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.

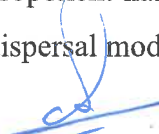


18. Trace metals in water.
19. A tabular chart with index for point wise compliance of above ToR.

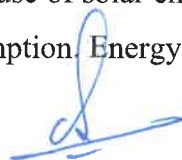
Annexure – C (Six-Lane Bridge - ToR)

A. STANDARD TERMS OF REFERENCE

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 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. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
6. 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.
7. AERMOD or any other latest model shall be used to predict the GLC of various air pollutant such as PM_{2.5}, PM₁₀, Sox, NOx etc. accordingly appropriate mitigation measures shall be suggested. All the monitoring stations shall be established in accordance with Standard Manual for undertaking EIA studies for Building & Construction and Area Development project and submit soft copy of at least one geotagged photographs for each sampling site and each sampling days having clearly imprinted date and time of monitoring along with google map showing location of all the monitoring sites. Project Proponent has to submit all raw data pertaining to air environment, meteorology and dispersal model which will be used in the EIA report.



8. Soft copy of geo-tagged site photographs of each locations used of collection of data for various environmental parameters for each monitoring dates shall be submitted separately in CD.
9. Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area together with obstruction of the same by the project, if any.
10. Submit Hydrogeology study undertaken by an institute of national repute of the area.
11. Submit the species wise details such as GBH (Girth at Breast Height) etc of the trees to be felled for the project.
12. The detail development plan of all other area marked as proposed green area shall be enclosed.
13. Effort should be made for removal of minimum number of existing trees as far as possible. Detailed action plan in this regard should be enclosed.
14. Submit the present land use and permission required for any conversion such as forest, agriculture etc.
15. Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.
16. Ground water classification as per the Central Ground Water Authority and NOC from CGWB.
17. Examine the details of Source of water, water requirement, use of treated waste water and prepare a water balance chart.
18. 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.
19. Examine soil characteristics and depth of ground water table for rainwater harvesting.
20. Examine details of solid waste generation treatment and its disposal.
21. Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption. Energy conservation and energy efficiency.



22. 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.
23. 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.
24. Examine the details of transport of materials for construction which should include source and availability.
25. 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 1st May 2018, as applicable, regarding Corporate Environment Responsibilities.
26. Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
27. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
28. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project.
29. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
30. Suggest alternative sites (detailed DPR duly vetted by a reputed Institute) for the construction of the proposed Bridge at Digha along existing JP Setu. The impact of existing as well as proposed Bridge on Socio-economic, environmental, ecological, Dolphin health/ movement, hydrogeology and morphology of the region, change in flow pattern must be included in the DPR for obtaining Environmental Clearance.
31. The number of piers should be minimum in the active channel during the non-monsoon period.
32. The span width should be 150 to 240 meter preferably to reduce the number of piers in the active channel without compromising with structural design of the bridge.

33. Prepare plan regarding disposal of muck during construction phase, which changes river morphology significantly.
34. Prepare plan for minimizing the noise pollution during and post construction phase as the endangered Gangetic Dolphins found at the site are highly sensitive to the noise pollution which interferes with their catching of food and navigation by emitting ultrasonic sound.
35. Prepare a report on impact on Biodiversity of Ganga River with special consideration of Gangetic Dolphin.
36. Submit a report prepared by an Institute of national repute working on Gangetic Dolphin on impact of construction activity on aquatic fauna especially on Gangetic Dolphin and other associated species and the riparian habitats. Aquatic biodiversity study in the vicinity of the proposed site be also conducted.
37. Proponent shall conduct a detailed and comprehensive study regarding total Environment Impact of the project activities on the Gangetic Ecosystem within 5 Km radius around the Project area focusing on the impacts of construction work and solid waste disposal on the flora and fauna specially keeping Gangetic Dolphins in the centre of study.
38. Submit a report on the socio-economic situation of human societies residing near the proposed site and dependent on the river, as well as the impact of bridge construction on their livelihoods.
39. Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website <http://moef.nic.in/Manual/Townships>



