# STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR

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

Ref. No. - 90 Patna Dated: - 27/02/2023

## MINUTES OF 18th MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR CONSTITUTED ON 12.08.2021

VENUE: SEIAA Office

DATE: 20th February, 2023

**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 17th Meeting (17/2023)** vide Ref. No.- 13, dated 09.01.2023 **of State Expert Appraisal Committee held on** 09th January, 2023. The State Expert Appraisal Committee, hereinafter called the SEAC, was informed that no representation has been received regarding projects considered in meeting held on 09th January, 2023. 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 18th meeting (18/2023) vide ref. no. 74 dated- 10.02.2023. 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 Residential Building Project "Construction of New Campus of Rajkiya Tibbi College and Hospital Kadamkauna at NMCH Campus" at Village:- Sadikpur Sangram, Tehsil:- Patna Rural, District:- Patna, State:- Bihar; by M/s Bihar Medical Services and Infrastructure Corporation Limited [Total Plot Area:- 40,468.60 $m^2$, Total Built-up Area:- 73,101 $m^2$]– Reg. Environmental Clearance**
**(File No.: SIA/8(a)/2295/2023, Proposal No.: SIA/BR/INFRA2/411282/2022).**

**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 07th February, 2023 for obtaining Environmental Clearance (EC).

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. Based on the discussion the committee directed the project proponent to submit the followings:-

1. Justification regarding site selection and regarding report about alternative site selection. The KML file clearly indicates that the proposed area is lying over the existing water body/pond over which construction cannot be allowed. As per Govt. of India guidelines, we have to protect water bodies, wetlands and ponds to transform it into "Amrit Sarovar" through rejuvenation. Already, as per the Ground Water Resources Assessment Report of the Central Ground Water Authority, the Patna Sadar block has been categorized as semi critical area .Therefore the project proponent was directed to justify the location of the project in the present site and to submit a report on potential alternative site for this project.

**AGENDA ITEM NO. 02**

**Proposed "Rajikiya Ayodhya Shiv Kumari Ayurvedic Hospital and College" at Village:- Bharra, Tehsil:- Begusarai, District:- Begusarai, State:- Bihar; by M/s Bihar Medical Services and Infrastructure Corporation Limited [Total Plot Area:- 29,059.213 $m^2$, Total Built-up Area:- 69,147.13 $m^2$– Reg. Environmental Clearance**

**(File No.: SIA/8(a)/2309/2023, Proposal No.: SIA/BR/INFRA2/416940/2023).**

**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 09th February, 2023 for obtaining Environmental Clearance (EC).

The Environmental M/s Rian Enviro Private Limited, was present for presentation without Project Proponent / Authorized representative of the Project Proponent. As per Office Memorandum (No. J-11015/333/2009-IA.II (M), dated 25.02.2010) of Ministry of Environment, Forest and Climate Change, Government of India. Participation of the Project Proponent during the State Expert Appraisal Committee (SEAC) is required.

The proposal was not considered by the SEAC due to the absence of the Project Proponent / Authorized representative. Therefore this project was deferred for next meeting. However, based on the prima facie details of the project, the committee directed the project proponent to submit the followings:-

1. Proposal regarding Zero Liquid Discharge (ZLD).
2. Demarcate the plantation area out in the site map Building setback area and clearly depict the space for peripheral green belt.
3. Plantation details along with species to be used, capital and recurring expenditure for maintenance of the same.

**AGENDA ITEM NO. 03**

**Proposed Residential Building Project of "Aranya P.N.B. Residency" at Village:- Gorhan, Tehsil:- Bihta, District:- Patna, State:- Bihar; by M/s Aranya Engicon Private Limited[Total Plot Area:- 8737.04 $m^2$ (Existing Plot Area= 4,912.27 $m^2$ + Proposed Plot Area = 3,824.77 $m^2$), Total Built-up Area:- 42138.98 $m^2$ (Existing Built-up Area= 18659.38 $m^2$ + Proposed Built-up Area = 23479.6 $m^2$)]– Reg. Environmental Clearance (File No.: SIA/8(a)/2273/2023, Proposal No.: SIA/BR/INFRA2/416809/2023).**

**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 31st January, 2023 for obtaining Environmental Clearance (EC).

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. Based on the discussion, the committee decided to make a site visit before further consideration of the proposed project.

**AGENDA ITEM NO. 04**

**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 $m^2$ (Existing Plot Area:- 5,407.31 $m^2$ + Proposed Plot Area:- 2,346.34 $m^2$), Total Built-up Area:- 29,909.96 $m^2$ (Existing Built-up Area:- 19,359.36 $m^2$ + Proposed Built-up Area:- 10,550.60 $m^2$)]– 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).

Earlier in the meeting dated- 26.12.2022, the committee had decided that the Project was not fit for grating Environmental Clearance and as such the proposal has been recommended for rejection as mentioned in the proceeding of that meeting. As per SEIAA MoM dated 27.01.2023 "The proposal be evaluated again for Environmental Clearance in the light of the documents (map, plan etc.) submitted by the project proponent."

. During the site visit on 25.12.2022 the committee made following observation:-

I. The site is located at Plot No.166 Khata No. 163 Thana No. 23, Tauzi No. 5292, Mauza Saguna Thana Danapur, District Patna. The ownership of the land is with the proponent. The Building plan was approved on 12/02/2019 by Nagar Parishad Danapur Nizamat for total built-up area of 15487.49 sqm.Two building blocks (Block

B & Block C) were already raised in the past. The space in between them has been covered with concrete slab upto roof top of the ground floor;

II. The block (Block D) also initiated up to basement level. It is also proposed to be covered up to the roof top of the ground floor. Three out of five Blocks have already raised. There is no proper mechanism for the movement of Fire vehicle between two separate buildings due to the construction of first floor (or roof top of ground floor).

III. There is less space/land available within the site complex for tree plantation, green belt, park for children and even greenery development.

IV. The proposed location and size of STP does not meet the requirements of the project.

The Project Proponent informed the SEIAA, Bihar that project plan has been amended / modified and addressed the observations raised by the committee. The Project Proponent resubmitted for plan in view of the above and requested for granting Environmental Clearance to the project.

The Committee meeting dated 20.02.2023 considered the project and reviewed the plan. The committee found that though relocation of STP has been made by the Project Proponent but other observations of the committee have not been addressed / complied.

The project Proponent submitted that the Fire Clearance was obtained on the basis of present plan and construction. The committee may consider for granting Environmental Clearance. The committee was of the opinion that clarification may be sought from the office of State Fire Officer-Cum Director, Bihar, Patna in the light of the above committee observations of the and concerns Committee particularly one which pertinent to carrying out rescue operation in the event of any disaster between the Block B and C which are jointed above ground floor by concrete slab/ RCC slab.

The prevailing situation at the ground was observed by the SEAC committee during its site visit on date 25.12.2022. The Committee opined that a clarification should also be obtained from the Urban Development and Housing Department, Government of Bihar regarding setback between two blocks "Whether the provision regarding setback is meant for single block or for all the blocks of the project. During the presentation, the project proponent claimed that the back side setback will be taken as the front side setback of adjoining block also.

The project proposal was decided to be deferred till further notice and project proponent was asked to fulfill the above requirements and submit the same to the SEAC for further consideration, if any.

**AGENDA ITEM NO. 05**

**Proposed Residential Building Project "Veena Vatika" at Drabhnaga Delhi More, Mauza:- Sonhan, Basdeopur, Tehsil:- Darbhanga, District:- Darbhanga, State:- Bihar; by M/s KKT Constructions Private Limited [Total Plot Area:- 16,148.70 $m^2$, Total Built-up Area:- 53,693.45 $m^2$]– Reg. Environmental Clearance**
**(File No.: SIA/8(a)/2073/2022, Proposal No.: SIA/BR/INFRA2/400470/2022).**

**Environment Consultant:** M/s P & M Solutions.

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 15th December, 2022 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant P & M Solutions, made a presentation on the key parameters and salient features of the project. Based on the discussion the committee directed the project proponent to submit the following documents for consideration in forthcoming meetings:-

1. Demarcate the plantation area around the Blocks / Building setback area.
2. Status of project area as per latest Central Ground Water Board (CGWB) ground water resource assessment report.
3. Submit the Solid Waste Management Plan with location on the map. Include an exclusive action plan in the Environment Management Plan regarding Solid Waste Management plan (including pest control)
4. Provide breakup of area for various infrastructures like STP, with their location and be shown on the plan including setback area.
5. Plantation details along with list of species to be used, capital and recurring expenditure for maintenance of the same. Do not include fruit bearing plant species to avoid birds
6. Increase space within the site complex for tree plantation.

7. Increase space within the site complex for fire exigency and any emergency situation arising out of any disaster situation.

**AGENDA ITEM NO. 06**

**Proposed Residential Building Project at Mauza:- Sikandarpur, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Satvika Nexgen Empire [Total Plot Area:- 20,243.20 $m^2$, Total Built-up Area:- 93,014.46 $m^2$] – Reg. Environmental Clearance**

**(File No.: SIA/8(a)/2308/2023, Proposal No.: SIA/BR/INFRA2/417613/2023).**

**Environment Consultant:** M/s P & M Solutions.

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 09th February, 2023 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant P & M Solutions 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. Provide solar panels over 30% of total rooftop area (open terrace).
2. While handing over the building/flats to the society, the developer must mention in the agreement or sale deed that 32.33% green belt area of the total plot area should be maintained & the conditions imposed by the SEIAA, Bihar in the Environmental Clearance has to be complied.
3. Corporate Environmental responsibility (CER) proposal, in consultation with the concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar Panchayat / Gram Panchayat) by clearly outlining the type of activities, which shall predominantly include Municipal Solid Waste Management activities like-
   a) Material Recovery Facility (MRF).

b) Wet Waste processing Facilities.

c) Waste collection vehicles, etc.

d) First-aid medical facilities with emergency numbers.

4. Make provisions for enough number of electric vehicle charging points at each parking area, for both four wheelers and two wheelers.

**AGENDA ITEM NO. 07**

**Proposed Residential Building Project "Dular Enclave" at Mauza:- Sikandarpur, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Sita Construction Private Limited [Total Plot Area:- 8,587.54 $m^2$ (Existing Plot Area:- 5,073 $m^2$+ Proposed Plot Area:- 3,514.54 $m^2$), Total Built-up Area:- 24,688.37 $m^2$ (Existing Built-up Area:- 12,681.80 $m^2$ + Proposed Built-up Area:- 12,006.31 $m^2$)] – Reg. Environmental Clearance**

**(File No.: SIA/8(a)/2286/2023, Proposal No.: SIA/BR/INFRA2/415351/2023).**

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

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 02nd February, 2023 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant M/s PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. Based on the discussion, the committee decided to make a site visit before further consideration of the proposed project.

**AGENDA ITEM NO. 08**

**Proposed Commercial cum Residential Building Project "Winsome Icon" at Mauza:- Sikandarpur, Tehsil:- Danapur-cum-Khagaul, District:- Patna, State:- Bihar; by M/s Winsome Realtors [Total Plot Area:- 12,930.89 $m^2$, Total Built-up Area:- 53,146.96 $m^2$] – Reg. Environmental Clearance**

**(File No.: SIA/8(a)/2310/2023, Proposal No.: SIA/BR/INFRA2/416750/2023).**

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

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 09th February, 2023 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant M/s 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 **"B"**.

1. Provide solar panels over 30% of total rooftop area (open terrace).
2. While handing over the building/flats to the society, the developer must mention in the agreement or sale deed that32.33% green belt area of the total plot area should be maintained & the conditions imposed by the SEIAA, Bihar in the Environmental Clearance has to be complied.
3. Corporate Environmental responsibility (CER) proposal, in consultation with the concerned authority of the Local Body (Municipal Corporation/Municipality/Nagar Panchayat / Gram Panchayat) by clearly outlining the type of activities, which shall predominantly include Municipal Solid Waste Management activities like-
   a) Material Recovery Facility (MRF).
   b) Wet Waste processing Facilities.
   c) Waste collection vehicles, etc.
   d) First-aid medical facilities with emergency numbers.
4. Make provisions for enough number of electric vehicle charging points at each parking area, for both four wheelers and two wheelers.

**AGENDA ITEM NO. 09**

**Proposed Residential Building Project "The Breeze" at Village:- Jhauganj, Diwan Mohalla, Nauzar Ghat, P.O.:- Patna City, Thana:- Khajekalan, District:- Patna, State:-**

**Bihar; by M/s Bhavya Construction Private Limited JV [Total Plot Area:- 7,014.12 $m^2$, Total Built-up Area:- 24,258.90 $m^2$] – Reg. Environmental Clearance (File No.: SIA/8(a)/2311/2023, Proposal No.: SIA/BR/INFRA2/417444/2023).**

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

Application along with filled up Form - I, Form - I(A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 10th February, 2023 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant M/s PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. Based on the discussion the committee directed the project proponent to submit the following for consideration in the forthcoming meetings:-

1. Submit a letter/copy of order from competent authorities regarding construction of new high rise building within 200 meter from river front of Ganga. The proposed site is found to be very close to the river Ganga (within 200 meters).

**AGENDA ITEM NO. 10**

**Proposed "Balmukund Concast Private Limited" (Expansion Project), Mauja:- Mahadeopur Phulari, Village:- Mahadeopur Phulari, Tehsil:- Bihta, District:- Patna, State:- Bihar; with Existing production capacity of 64,350 MTPA of MS Ingot and 60,000 MTPA of TMT Bar / Rod and proposed production capacity of 85,650 TPA of MS Ignot and 1,20,000 TPA of TMT bar / Rod, After expansion total production capacity of 1,50,000 TPA of MS Ignot and 1,80,000 TPA of TMT bar / Rod) – Reg. Environmental Clearance**
**(File No.: SIA/3(a)/2299 (Exp.)/2023, Proposal No.: SIA/BR/IND1/416484/2023).**

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

Application along with filled up Form - I, Prefeasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 19thMarch, 2020 for obtaining Terms of reference (ToR). ToR has been granted by SEIAA, Bihar vide F. No.:- SIA/3(a)/220/16/II/2020, dated 29.07.2020 and Public Consultation has been

conducted by Bihar State Pollution Control Board, Patna on dated 20.12.2021. The Project Proponent submits Form – 3 for amendment in Terms of Reference dated 30.08.2022.The Committee apprised the proposal as a case of violation in the light of O.M. No. F. No. 22-21/2020-IA.III [E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India. The Committee recommends amendment in the ToR which was issued earlier. (SIA/3(a)/220/16/II/20 dated 29.04.2020). Amendment in ToR has been granted by SEIAA, Bihar vide F. No.:-SIA/3(a)/220/16/II/20 dated 23.09.2022. Final EIA under violation in the prescribed format was submitted to SEIAA, Bihar on 02nd February, 2023 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant M/s PARAMARSH (Servicing Environment and Development), made a presentation on the key parameters and salient features of the project. The Committee, after considering the O.M. No. 22-21/2020-IA.III [E 138949] Dated 28.01.2022 of the MoEF&CC, GoI, calculated the amount of environmental compensation and penalty and the same has been calculated. The Natural Resource Augmentation and Community resource Augmentation plan comes to be Rs. 03 lakhs and the Penalty comes to be Rs. 27.02 lakhs for the violations of the prescribed provisions of EIA Notifications.

The Committee decided to recommend the proposal to SEIAA for grant of Environmental Clearance subject to the following condition in addition to the standard Environmental Clearance condition in Annexure **"C"**

1. The amount prescribed for remediation, Natural Resource Augmentation and Community resource Augmentation plan comes to be Rs. 03.00 lakhs to be remitted in the form of bank guarantee from any nationalised bank to The Member Secretary, Bihar State Pollution Control Board,Patna and Penalty comes to be Rs. 27.02 lakhs for the violation and shall be submit to The Member Secretary, Bihar State Pollution Control Board, Patna, before obtaining Environmental Clearance and acknowledgement of the same shall be submitted to SEIAA, Bihar. The funds should be utilized for the remediation plan, Natural and Community resources augmentation plan as indicated in the EIA / EMP report.
2. The Project Proponent shall carry out / begin the work assigned / proposed under Ecological damage, Natural and Community resources augmentation plan within a

period of six months, AND submit a detailed action plan within three months from date of grant of Environmental Clearance by the SEIAA, Bihar.

**AGENDA ITEM NO. 11**

**Proposed Common Bio-Medical Waste Treatment Facility at Mauza:- Ainlo, Tehsil:- Fatwah, District:- Patna, State:- Bihar, by M/S S. R. Solutions [Proposed Capacity:- Incinerator – 750 Kg/hour, Autoclave – 1000 Liters/batch, Shredder – 300 Kg/hour, Effluent Treatment Plant – 10 KLD] – Reg. Environmental Clearance**
**(File No.: SIA/7(da)/2036/2022, Proposal No.: SIA/BR/INFRA2/414514/2023).**

**Environment Consultant:** M/s Shivalik Solid Waste Management Limited.

Application along with filled up Form - I, Prefeasibility Report and Environment Management Plan in the prescribed format was submitted to SEIAA, Bihar on 03rd June, 2022 for obtaining Terms of reference (ToR). ToR has been granted by SEIAA, Bihar vide F. No.:- SIA/7(da)/2036/2022, dated 29.07.2022 and Public Consultation has been conducted by Bihar State Pollution Control Board, Patna on dated 21.12.2022. Final EIA in the prescribed format was submitted to SEIAA, Bihar on 30thJanuary, 2023 for obtaining Environmental Clearance (EC).

The Project Proponent along with environmental consultant M/s Shivalik Solid Waste Management Limited, made a presentation on the key parameters and salient features of the project. Based on the discussion, the committee decided to keep this project proposal in abeyance till the time the disposal of the tender called by Bihar State Pollution Control Board, for establishment of additional Common Bio-Medical Waste Treatment Facility for Patna.

***Consideration of Terms of Reference Proposal***

**AGENDA ITEM NO. 12**

**Proposed Metallurgical Project "Dina Mahabir Re-rollers Private Limited" at Mauza:- Agamkuan, Tehsil:- Patna Rural, District:- Patna, State:- Bihar; Area:- 3.8 Acres by M/s Dina Mahabir Re-rollers Private Limited [Proposed production capacity of TMT Bars 94,500 TPA] – Reg. Terms of Reference**
**(File No.: SIA/3(a)/2245/2023, Proposal No.: SIA/BR/IND1/411172/2022).**

**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 06th January, 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. The Project Proponent requested that exempted from the requirement of Public Consultation as per S. O. No. 3250 (E), dated 20.07.2022 of MoEF&CC, GoI. The Committee accepted their request and exempted the project from Public Consultation. 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 standard condition in Annexure **"D"**.

1. Submit the vehicle movement plan inside the industries.
2. Status of project area as per latest Central Ground Water Board (CGWB) ground water resource assessment report.
3. Plantation details along with list of species to be planted, capital and recurring expenditure for maintenance of the same.
4. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
5. Explore using alternative clean fuel instead of the fossil fuel (Coal) in order to reduce the pollution load.

**AGENDA ITEM NO. 13**

**Proposed Chemical Fertilizer Project "Indian Potash Limited" at Village:- Bela Industrial Area, Tehsil:- Mushari, District:- Muzaffarpur, State:- Bihar; by M/s Indian Potash Limited (Previously:- M/s Sri Krishna Fertilizers Limited [Production Facilities Single Super Phosphate (SSP) {Existing – 100 MT/Day (GSSP: Granular Single Super Phosphate), Proposed Modernization and Expansion – Granular SSP or Powder SSP**

**300 MT/Day} Total Production:- 400 MT/Day (GSSP or PSSP)] – Reg. Terms of Reference**

**(File No.: SIA/5(a)/2296/2023, Proposal No.: SIA/BR/IND3/417024/2023).**

Application along with filled up Form – I and Pre-feasibility Report in the prescribed format was submitted to SEIAA, Bihar on 07th February, 2023 for obtaining Terms of Reference (ToR).

The Project Proponent made a presentation on the key parameters and salient features of the project. The Project Proponent requested that exempted from the requirement of Public Consultation as per F. No. J-11013/36/2014-IA-I, dated 04.04.2016 of MoEF&CC, GoI. The Committee accepted their request and exempted the project from Public Consultation. The Project Proponent informed that Baseline Data is being generated (November 2022 to January 2023). The committee rejected the Baseline Data because the data were collected before the submission of the proposal. 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 standard condition in Annexure **"E"**.

1. Submit a plan regarding automatic water sprinklers.
2. Baseline Data shall be collected in the month of March to May, 2023.
3. Submit a list of flora and fauna of the project area.
4. Status of project area as per latest Central Ground Water Board (CGWB) ground water resource assessment report.
5. Plantation details along with list of species to be planted capital and recurring expenditure for maintenance of the same.
6. Create a low depth pond within the campus to meet necessities arising out of any industrial accident.

**AGENDA ITEM NO. 14**

**Proposed Metallurgical Project "Sri SAI Industries" at Mauza:- Dihri, Poiwa Pachrukhia Road, P.O.:- Poiwa, Village:- Dihri, Tehsil:- Aurangabad, District:-**

**Aurangabad, State:- Bihar; by M/s Sri SAI Industries [Production Facilities of Re-rolling Mill of Product MS Flat / Angle / Channel / Square 9,450 TPA (27 TPD)] – Reg. Terms of Reference**

**(File No.: SIA/3(a)/2244/2023, Proposal No.: SIA/BR/IND1/412034/2022).**

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

Application along with filled up Form – I and Pre-feasibility Report in the prescribed format was submitted to SEIAA, Bihar on 06th January, 2023 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. The Project Proponent requested that exempted from the requirement of Public Consultation as per S. O. No. 3250 (E), dated 20.07.2022 of MoEF&CC, GoI. The Committee accepted their request and exempted the project from Public Consultation. 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 standard condition in Annexure **"F"**.

1. Submit a plan regarding automatic water sprinklers.
2. Status of project area as per latest Central Ground Water Board (CGWB) ground water resource assessment report
3. Submit a list of flora and fauna of the project area
4. Plantation details along with list of species to be planted, capital and recurring expenditure for maintenance of the same.
5. Explore using alternative clean fuel instead of the fossil fuel (Coal) in order to reduce the pollution load.

**LIST OF PARTICIPANTS IN 18th MEETING OF SEAC, BIHAR HELDON 20th FEBRUARY 2023**

| Sl. No. | Name | Designation | Attended on 20.02.2023 |
|---|---|---|---|
| 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 | **Absent** |
| 6. | Shri Mokhtarul 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/-
**(Mokhtarul Haque)**
Member, SEAC

24/2/23

**(S. Chandrasekar, IFS)**
Member Secretary

Gopal Sharma
24.02.2023

**(Dr. Gopal Sharma)**
Chairman

**Copy to:-**
The Member Secretary, SEIAA, Bihar
For information and necessary action.

## Annexure – A (Satvika Nexgen - 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 Consent to Establish (CTE) from the BSPCB before preparing site for construction; if applicable and Consent to Operate (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$^{rd}$ 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$^{th}$ 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$^{rd}$ 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, murram 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 27th August, 2003 and 25th January, 2016,Ready mixed concrete must be used in building construction.

11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

12. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

## VII. Green Cover:

1. No tree 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. 6,542 $m^2$ (32.33%) 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 translocate 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 O.M. vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements/deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

3. 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 it's 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 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 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 (Winsome Icon - 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 Consent to Establish (CTE) from the BSPCB before preparing site for construction; if applicable and Consent to Operate (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. $1/3^{rd}$ 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 $15^{th}$ 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$^{rd}$ 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, murram 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 27th August, 2003 and 25th January, 2016,Ready mixed concrete must be used in building construction.

11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

12. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

## VII. Green Cover:

1. No tree 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. 3,238.53 $m^2$ (25%) 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 translocate 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 O.M. vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

3. 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 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 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 – C (Balmukund Concast - 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. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and $SO_2$ and NOx in reference to $SO_2$ and

NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of $120^0$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) 31$^{st}$ 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; $PM_{2.5}$, $PM_{10}$, $SO_2$, NOx (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 – D (Dina Mahabir - 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 $A_3/A_2$ 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. 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.

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 heath 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 – E (Indian Potash - 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. If expansion project, 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, 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 contract)
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/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 Iexisting 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 FY2005-2006) 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 covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

ii. A toposheet of the study area of radius of 10km 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 (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. Forest and wildlife related issues (if applicable):**

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).

ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)

iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.

iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

**6. Environmental Status**

i. Determination of atmospheric inversion level at the project site and site-specific micro meteorological 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 pre-dominant 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 (100m 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. Detailed description of flora and fauna (terrestrial 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.

xi. Socio-economic status of the study area.

## 7. Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based onsite-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. 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.

iv. 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.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. 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.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than1,500 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.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rain water 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.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. 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.

**8. 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 heath status of workers with special reference to Occupational Health and Safety.

**9. 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. 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.

iii. 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.

iv. 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.

**10.** 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.

**11.** 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.

**12.** 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.

**13.** A tabular chart with index for point wise compliance of above TOR.

## B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR CHEMICAL FERTILIZER

1. Details on requirement of energy and water along with its source and authorization from the concerned department.
2. Energy conservation in ammonia synthesis for urea production and comparison with best technology.
3. Details of ammonia storage and risk assessment thereof.
4. Measures for control of urea dust emissions from prilling tower.
5. Measures for reduction of fresh water requirement.
6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards for fertilizer.
7. Details of fluorine recovery system in case of phosphoric acid plants and SSP to recover fluorine as hydrofluorosilicic acid (H2SiF6) and its uses.
8. Management plan for solid/hazardous waste including storage, utilization and disposal of bye products viz., chalk, spent catalyst, hydro fluoro silicic acid and phosphor gypsum, sulphur muck, etc.
9. Details on existing ambient air quality for PM10, PM2.5, Urea dust*, NH3*, SO2*,NOx*,HF*,F*,Hydrocarbon ( Methane and Non-Methane) etc., and expected, stack and fugitive emissions and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards.(*as applicable)
10. Details on water quality parameters in and around study area such as pH, Total Kjeldhal Nitrogen, Free Ammonical Nitrogen, free ammonia, Cyanide, Vanadium, Arsenic, Suspended Solids, Oil and Grease, *Cr as Cr+6, *Total Chromium, Fluoride, etc.

## 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 $A_3/A_2$ 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. 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.

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 heath 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.