सत्यमेव जयते

File No.: J-11011/457/2024-IA-II(IND-I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Dated **11/12/2024**

To,

Ayush Agrawal
BPA METALLICS PRIVATE LIMITED
Village- Patrapali, Tehsil- Kotmar , Patrapali and Kotmar, RAIGARH, CHHATTISGARH, 496111
bpa2024.co@gmail.com

Subject: Grant of Standard Terms of Reference (ToR) to the proposed Project under the EIA Notification 2006-and as amended thereof-regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/CG/IND1/508292/2024 dated 02/12/2024 for grant of Terms of Reference (ToR) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) ToR Identification No.	TO24A1005CG5957684N
(ii) File No.	J-11011/457/2024-IA-II(IND-I)
(iii) Clearance Type	Fresh ToR
(iv) Category	A
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous)
(vi) Sector	Industrial Projects - 1
(vii) Name of Project	Greenfield steel project consisting DRI plant to produce Sponge Iron 717500TPA, I/O Beneficiation1000000TPA, Pellet Plant600000TPA with PGP of 5x5500 Nm3/hr, MS Billets612500TPA Rerolled Steel Products582000TPA(through Hot Charging, RHF) SAF(2x9MVA+3x6MVA+3x4MVA) to produce SiMn96000TPA/FeMn120000TPA/FeSi52000TPA/Pig Iron192000TPA, Sinter Plant33000TPA, Coal Washery1000000TPA MS Pipe350000TPA, O2 Plant45000 Nm3/hr CPP-131MW(WHRB-56MW+FBC-75MW) Fly Ash Bricks 54900Brick/day, Slag crusher-350TPD

(viii) Name of Company/Organization	BPA METALLICS PRIVATE LIMITED
(ix) Location of Project (District, State)	RAIGARH, CHHATTISGARH
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	NO

3. The **MoEF&CC** has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after detailed examination hereby decided to grant Standard Terms of Reference to the instant proposal of **M/s.BPA METALLICS PRIVATE LIMITED** under the provisions of the aforementioned Notification.
4. The brief about products and by products as submitted by the Project proponent in Form-1 (Part A, B) and Standard Terms of Reference are annexed to this letter as Annexure (1).
5. PP shall ensure that the project (including land allotment) is in compliance to various acts/ rules/ provisions of the Central/ concerned State Govt.
6. The Ministry reserves the right to stipulate additional TORs, if found necessary.
7. The Standard Terms of Reference (ToR) to the aforementioned project is under provisions of EIA Notification, 2006 and as amended thereof. It does not tantamount to approvals/ consent/ permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
8. The granted letter, all the documents submitted as a part of application viz. Form-1 Part A and Part B are available on PARIVESH portal which can be accessed by scanning the QR Code above.

Copy To
N/A

Annexure 1

Standard Terms of Reference

1. Preliminary requirements

S. No..	Terms of Reference
1.1	EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.
1.2	Besides, following points shall be compiled as per QCI/NABET norms: a. Disclaimer by the EIA consultant. b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person. c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report. d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC. e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

2. Executive Summary

S. No..	Terms of Reference
2.1	Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.
2.2	Point wise compliance to the ToR issued by MoEF&CC.

3. Executive Summary

3.1. Introduction

S. No..	Terms of Reference
3.1.1	Name of the project along with applicable schedule and category as per EIA, 2006.
3.1.2	Location and accessibility

4. Executive Summary

4.1. Project description

S. No..	Terms of Reference
4.1.1	Resource requirements (Land; water; fuel; manpower)
4.1.2	Operational activity
4.1.3	Key pollution concerns

5. Executive Summary

5.1. Baseline Environment Studies

S. No..	Terms of Reference
5.1.1	Ambient air quality
5.1.2	Ambient Noise quality
5.1.3	Traffic study
5.1.4	Surface water quality
5.1.5	Ground water quality
5.1.6	Soil quality
5.1.7	Biological Environment
5.1.8	Land use

S. No..	Terms of Reference
5.1.9	Socio-economic environment

6. Executive Summary

6.1. Anticipated impacts

S. No..	Terms of Reference
6.1.1	Impact on ambient air quality
6.1.2	Impact on ambient noise quality
6.1.3	Impact on road and traffic
6.1.4	Impact on surface water resource and quality
6.1.5	Impact on ground water resource and quality
6.1.6	Impact on terrestrial and aquatic habitat
6.1.7	Impact on socio-economic environment

7. Executive Summary

7.1. Alternative analysis

S. No..	Terms of Reference
7.1.1	

8. Executive Summary

8.1. Environmental Monitoring program

S. No..	Terms of Reference
8.1.1	Ambient air, noise, water and soil quality
8.1.2	Noise quality management plan
8.1.3	Emission and discharge from the plant
8.1.4	Green Belt
8.1.5	Social Parameters

9. Executive Summary

9.1. Additional Studies

S. No..	Terms of Reference
9.1.1	Risk assessment
9.1.2	Public consultation
9.1.3	Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020

10. Executive Summary

10.1. Environment management plan

S. No..	Terms of Reference
10.1.1	Air quality management plan
10.1.2	Solid and hazardous waste management plan
10.1.3	Effluent management plan
10.1.4	Storm water management plan
10.1.5	Occupational health and safety management plan
10.1.6	Green belt development plan
10.1.7	Socio-economic management plan
10.1.8	Project cost and EMP implementation budget.

11. Introduction

S. No..	Terms of Reference
11.1	Background about the project
11.2	Need of the project
11.3	Purpose of the EIA study
11.4	Scope of the EIA study

12. Project description

12.1. Site Details

S. No..	Terms of Reference
12.1.1	Location of the project site covering village, Taluka/Tehsil, District and State.

S. No..	Terms of Reference
12.1.2	Site accessibility
12.1.3	A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).
12.1.4	Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.
12.1.5	Environment settings of the site and its surrounding along with map.
12.1.6	A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
12.1.7	In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
12.1.8	In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
12.1.9	In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.
12.1.10	Type of land, land use of the project site needs to be submitted.
12.1.11	Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
12.1.12	Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
12.1.13	Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.
12.1.14	A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.

S. No..	Terms of Reference
12.1.15	Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

13. Project description

13.1. Forest and wildlife related issues (if applicable)

S. No..	Terms of Reference
13.1.1	Status of Forest Clearance for the use of forest land shall be submitted.
13.1.2	Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
13.1.3	The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
13.1.4	Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

14. Project description

14.1. Salient features of the project

S. No..	Terms of Reference
14.1.1	Products with capacities in Tons per Annum for the proposed project.
14.1.2	If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
14.1.3	Site preparatory activities.
14.1.4	List of raw materials required and their source along with mode of transportation.
14.1.5	Other than raw materials, other chemicals and materials required with quantities and storage capacities.
14.1.6	Manufacturing process details along with process flow diagram of proposed units.
14.1.7	Consolidated materials and energy balance for the project.
14.1.8	Total requirement of surface/ ground water and power with their respective sources, status of approval.
14.1.9	Water balance diagram

S. No..	Terms of Reference
14.1.10	Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
14.1.11	Man-power requirement.
14.1.12	Cost of project and scheduled time of completion.
14.1.13	In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
14.1.14	Brief on present status of compliance (Expansion/modernization proposals) a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out. b. Cumulative Impact Assessment need to be carried out by greenfield projects considering the nearby industries. c. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source. d. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection. e. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

15. Description of the Environment

S. No..	Terms of Reference		
15.1	Study period		
15.2	Approach and methodology for data collection as furnished below		
	Attributes	**Sampling**	**Remarks**
		Network / Frequency	
	Air Environment Micro-Meteorological • Wind speed (Hourly) • Wind direction • Dry bulb temperature	Minimum 1 site in the project impact area / hourly continuous	IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi

S. No..	Terms of Reference		
	• Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental • Lapse Rate		• CPCB guidelines to be considered.
	Pollutants • PM10 • SO2 • NOx • CO • HC • Other parameters relevant to the project and topography of the area	At least 8-12 locations	As per National Ambient Air Quality Standards,CPCB Notification. • Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different parameters should be related to the characteristic properties of the parameters. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 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.
	Noise Hourly equivalent noise levels	At least 8-12 locations	s per CPCB norms
	Water Parameters for water quality	Samples for water quality should be collected and analyzed as per:	

S. No..	Terms of Reference
	• pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity • Total nitrogen, total phosphorus, DO, BOD, COD, Phenol • Heavy metals • Total coliforms, faecal coliforms • Phyto plankton • Zoo plankton For River Bodies • Total Carbon • pH • Dissolved Oxygen • Biological Oxygen Demand • Free NH4 • Boron • Sodium Absorption Ratio • ElectricalConductivity For Ground Water Traffic Study Type of vehicles • Frequency of vehicles for transportation of materials • Additional traffic due to proposed project Soil • Particle size distribution • Texture • pH	• IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents • Standard methods for examination of water and wastewater analysis published by American Public Health Association Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies • Yield of water sources to be measured during critical season • Standard methodology for collection of surface water (BIS standards) Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included. Land Environment Soil samples be collected as per BIS specifications

S. No..	Terms of Reference
	• Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR • Permeability Water holding capacity • Porosity Land use/Landscape • Location code • Total project area • Topography • Drainage (natural) Cultivated, forest,plantations, water bodies, roads and settlements Biological Environment 1. Aquatic • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ) 2. Terrestrial • Vegetation-species list, economic importance, forest produce,medicinal • 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. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests. • Secondary data to collect from Government offices, NGOs, published literature.

S. No..	Terms of Reference

value

- Importance value index (IVI) of trees
- Fauna
- Avi fauna
- Rare and endangered species
- Sanctuaries / National park / Biosphere reserve
- Migratory routes

socio-economic
Demographic structure

- Infrastructure resource base
- Economic resource base
- Health status:Morbidity pattern
- Cultural and aesthetic attributes.
- Education

Socio-economic survey is based on proportionate, stratified and random sampling method.

- Primary data collection through questionnaire
- Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

Approach and methodology for data collection as furnished below

Attributes	Sampling		Remarks
	Network	Frequency	
Air Environment Micro-Meteorological • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental • Lapse Rate	Minimum 1 site in the project impact area	hourly continuous	IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.

S. No..	Terms of Reference			
	Pollutants • PM10 • SO2 • NOx • CO • HC • Other parameters relevant to the project and topography of the area	At least 8-12 locations	As per National Ambient Air Quality Standards,CPCB Notification.	• Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different parameters should be related to the characteristic properties of the parameters. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 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.
	Noise Hourly equivalent noise levels	At least 8-12 locations	s per CPCB norms	
	Water Parameters for water quality • pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity • Total nitrogen, total phosphorus, DO, BOD, COD, Phenol • Heavy metals • Total coliforms, faecal	Samples for water quality should be collected and analyzed as per: • IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents • Standard methods for examination of water and wastewater analysis published by American Public Health Association		

S. No..	Terms of Reference		
	coliforms • Phyto plankton • Zoo plankton For River Bodies • Total Carbon • pH • Dissolved Oxygen • Biological Oxygen Demand • Free NH4 • Boron • Sodium Absorption Ratio • ElectricalConductivity	Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies	• Yield of water sources to be measured during critical season • Standard methodology for collection of surface water (BIS standards)
	For Ground Water	Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included.	
	Traffic Study Type of vehicles • Frequency of vehicles for transportation of materials • Additional traffic due to proposed project	Land Environment	
	Soil • Particle size distribution • Texture • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR • Permeability Water holding capacity • Porosity	Soil samples be collected as per BIS specifications	
	Land use/Landscape		

S. No..	Terms of Reference
	• Location code • Total project area • Topography • Drainage (natural) Cultivated, forest,plantations, water bodies, roads and settlements Biological Environment 1. Aquatic • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ) 2. Terrestrial • Vegetation-species list, economic importance, forest produce,medicinal value • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes • 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. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests. • Secondary data to collect from Government offices, NGOs, published literature.

S. No..	Terms of Reference
	socio-economic Demographic structure • Infrastructure resource base • Economic resource base • Health status:Morbidity pattern • Cultural and aesthetic attributes. • Education Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies
15.3	Interpretation of each environment attribute shall be enumerated and summarized as given below: • Ambient air quality • Ambient Noise quality • Surface water quality • Ground water quality • Soil quality • Biological Environment • Land use • Socio-economic environment
15.4	The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

16. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)

S. No..	Terms of Reference
16.1	Identification of potential impacts in the form of a matrix for the construction and operation phase for all the environment components **Activity** **Environment** **Ecological** **Socio-economic** Construction phase Operation phase
16.2	Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase • Details of stack emissions from the existing as well as proposed activity. • Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period • Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.
16.3	Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase
16.4	Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase
16.5	Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual

S. No..	Terms of Reference
	impact) a. Construction phase b. Operation phase
16.6	Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase
16.7	Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase
16.8	Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase
16.9	Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase
16.10	Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase
16.11	Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact) a. Construction phase b. Operation phase

17. Analysis of Alternatives (Technology & Site)

S. No..	Terms of Reference
17.1	No project scenario
17.2	Site alternative
17.3	Technical and social concerns
17.4	Conclusion

18. Environmental Monitoring Program

S. No..	Terms of Reference
18.1	Details of the Environment Management Cell
18.2	Performance monitoring schedule for all pollution control devices shall be furnished.
18.3	Corporate Environment Policy a. 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. b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.

S. No..	Terms of Reference
	c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.Page 9 of 10 d. Does the company have system of reporting of non compliances / violations of environment 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
18.4	Action plan for post-project environment monitoring matrix: **Activity Aspect Monitoring Parameter Location Frequency Responsibility** Construction phase Operation phase

19. Additional Studies

S. No..	Terms of Reference
19.1	Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.
19.2	Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.
19.3	Implementation status/measures adopted for avoiding the generation of single used plastic waste.
19.4	In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.
19.5	Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
19.6	As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
19.7	Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020 **S.No Physical activity and action plan Year of implementation (Budget in INR) Total Expenditure (Rs. in Crores)**

S. No..	Terms of Reference
	Name of the Activity / Physical Targets / 1st / 2nd / 3rd
19.8	Risk assessment • Methodology • Hazard identification • Frequency analysis • Consequence analysis • Risk assessment outcome
19.9	Emergency response and preparedness plan

20. Project Benefits

S. No..	Terms of Reference
20.1	Environment benefits
20.2	Social infrastructure
20.3	Employment and business opportunity
20.4	Other tangible benefits

21. Environment Cost Benefit Analysis

S. No..	Terms of Reference
21.1	Net present value
21.2	Internal rate of return
21.3	Benefit cost ratio
21.4	Cost effectiveness analysis

22. Environment Management Plan (Construction and Operation phase)

S. No..	Terms of Reference
22.1	Action plan for hazardous waste management
22.2	Action plan for solid waste management

S. No..	Terms of Reference
22.3	Action plan for e-waste management.
22.4	Action plan for plastic waste management, considering the Plastic Waste Management Rules 2016.
22.5	Action plan for construction and demolition waste management.
22.6	Rain water harvesting plan
22.7	Plan for maximum usage of waste water/treated water in the Unit
22.8	Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
22.9	Wildlife conservation plan (In case of presence of schedule I species)
22.10	Total capital cost and recurring cost/annum for environment pollution control measures shall be included.
22.11	Explore possibilities for recycling and reusing of treated water in the unit to reduce the freshwater demand and waste disposal.
22.12	An Action Plan for improving the house-keeping activities in the raw material handling area need to be submitted
22.13	Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
22.14	Action plan to limit the dust emission from all the stacks below 30 mg/Nm3 shall be furnished.
22.15	Action plan for fugitive emission control in the plant premises shall be provided.

Standard Terms of Reference for conducting Environment Impact Assessment Study for Metallurgical Industries (ferrous and non ferrous) and information to be included in EIA/EMP report

1.

Sr. No.	Terms of Reference
1.1	A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
1.2	Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.

Sr. No.	Terms of Reference
1.3	Plan for solid wastes utilization.
1.4	Plan for utilization of energy in off gases (coke oven, blast furnace)
1.5	System of coke quenching adopted with full justification.
1.6	Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
1.7	Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
1.8	Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
1.9	100 % dolo char generated in the plant shall be used to generate power.
1.10	Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
1.11	No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
1.12	Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
1.13	Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
1.14	Action plan for 100 % solid waste utilization shall be submitted.
1.15	PM (PM10 and P2.5) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM10 to be carried over.
1.16	Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines, if applicable.
1.17	Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact, if applicable.
1.18	Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials, if applicable.

Additional Terms of Reference

N/A

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
Sponge Iron	Product	717500	Tons per Annum (TPA)	Road	NA
Rerolled Steel Product (Wire Rod, TMT bar, Structure Steel)	Product	582000	Tons per Annum (TPA)	Road	NA
Silico- Manganeese	Product	96000	Tons per Annum (TPA)	Road	NA
Benefeciated Iron Ore	Product	1000000	Tons per Annum (TPA)	Road	NA
Iron Ore Pellets	Product	600000	Tons per Annum (TPA)	Road	NA
MS Billets/ Hot Billets	Product	612500	Tons per Annum (TPA)	Road	NA
Fly Ash Brick	Product	54900	Numbers Per Day	Road	NA
Ferro Manganese	Product	120000	Tons per Annum (TPA)	Road	NA
Ferro Silicon	Product	52000	Tons per Annum (TPA)	Road	NA
Pig Iron	Product	192000	Tons per Annum (TPA)	Road	NA
Clean Coal	Product	1000000	Tons per Annum (TPA)	Road	NA
Sintered Iron	Product	33000	Tons per Annum (TPA)	Road	NA
Co-Power Generation	Product	131	Mega Watt (MW)	Transmission Lines	NA

Address: IA Division, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh New Delhi - 110003