

F. No. J-11011/531/2007- IA-II(I)
Government of India
 Ministry of Environment, Forest and Climate Change
 (Impact Assessment Division)

Indira Paryavaran Bhawan
 Jor Bagh Road, Aliganj,
 New Delhi - 110003
 E-mail: sharath.kr@gov.in
 Tel: 011-24695319

Dated: 20th October, 2017

To

M/s Shri Bajrang Power & Ispat Limited
 Village Borjhara, Urla-Guma road,
 Urla Growth Centre, District Raipur,
 Chhattisgarh - 493221.

Subject: Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel) at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh by M/s Shri Bajrang Power & Ispat Limited - Prescribing Terms of Reference regarding.

Sir,

This has reference to your online application vide proposal no. **1A/CG/IND/67789/2017** dated **31st August 2017** along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & nonferrous) under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level.

2.0 M/s Shri Bajrang Power & Ispat Limited is operating 2x350 TPD Sponge Iron Plants with 26 MW Captive Power Plant, 6 x 8 MT Induction Furnace with Continuous Casting machine, 2 x 4 MVA Ferro Alloys plant and 1.2 MTPA Coal Washery and 0.15 MTPA Rolling Mill at Village Borjhara, in Urla Industrial Complex, Raipur, Chhattisgarh. The existing project was accorded environmental clearance vide Ir.no. J-11011/531/2007-IA.II (I) dated 17-01-2008; J-11015/159/2009- IA.II(M) dated 28.1.2010; and J-11015/159/2009- IA.II(M) dated 26.8.2013. The details of renewals of Consent to Operate accorded by Chhattisgarh State Pollution Control Board are as follows: -

1. Renewal of Consent to operate of Ferro alloys and Biomass based Power plant granted vide letter No. 2895/TS/CECB/2017 of water and 2897/TS/CECB/2017 Of air dated 26/08/2017 and valid upto 30/05/2020.
2. Consent to operate of Steel Melting Shop granted vide letter No. 3531/TS/CECB/2016 of water and 3533/TS/CECB/2016 of air dated 20/09/2016 and valid upto 20/09/2017. Renewal for further period is also under process at CECB.
3. Renewal of Consent to operate of Coal washery and Hot Re-Rolling Mill Plant granted vide letter No. 8081/TS/CECB/2015 of water and 8083/TS/CECB/2015 Of air dated 16/03/2015 and valid upto 31/12/2017.

4. Renewal of Consent to operate of Sponge Iron and Waste Heat Recovery Based Power Plant granted vide letter No. 8512/TS/CECB/2015 of water and 8514/TS/CECB/2015 Of air dated 27/03/2015 and valid upto 31/03/2018.

3.0 M/s. Shri Bajrang Power & Ispat Ltd. proposes for the expansion of existing manufacturing unit for increase capacity of Sponge iron; Steel Melting; Ferro alloy; rolling mill; and proposed to establish New Pellet Plant. The proposed capacity for different products are as below:

Existing Installed Capacity and Total Capacity after expansion		
Existing Production capacity and configuration	Total capacity after expansion and configuration	Remark
Sponge Iron - 2,10,000 TPA 2 x 350 TPD x 300 days	Sponge Iron - 2,64,000 TPA 2 x 400 TPD x 330 days	Sponge iron process optimization with same 2 kilns by use of good quality coal
Total Power Plant - 26 MW (CPP) WHRB - 18 MW AFBC Boiler 60 TPH Fuel: Rice Husk & Dolomite	WHRB - 18 MW CPP - 8 MW AFBC Boiler 60 TPH Fuel: Rice Husk & Dolomite	No change in capacity but Change in fuel Mix for CPP. To include coal as fuel in addition to Rice Husk & Dolomite
SMIS - 1,29,600 TPA 6 x 8T Induction Furnace	SMIS - 2,11,200 TPA	Two more induction furnace of 15 T each along with continuous casting machine and LRF to be installed for additional production 81,600 TPA.
Ferro Alloys - 14,400 TPA 2 x 4 MVA (SAF) (Combined use of Ferro & Biomass)	Ferro Alloys - 19,800 TPA 1 x 5 MVA + 1 x 6 MVA (SAF)	Existing furnaces 4 MVA - 2 Nos. will be replaced by higher capacity transformer 1x5 MVA + 1x6 MVA
Rolling Mill - 0.15 MTPA	Rolling Mill - 0.21 MTPA	Optimization of production capacity of Rolling Mill by curtailing idle running hours
Pellet plant (0.6 MTPA) CTE granted by CECB, but plant yet not installed	Proposed - Pellet Plant (0.6 MTPA)	New unit - Applying for EC

4.0 The proposed expansion will be carried in the existing plant premises in Khasra No. 173, 174, 175, 176, 177 & 178, at village Borjhara, in Urla Industrial Complex, Raipur, Chhattisgarh. The project area is bounded by latitudes from 21°18'23" to 21°18'46" Longitudes 81°35'09" to 81°35'44" covered in Survey of India Toposheet No. 64G/11.

5.0 The land area acquired for the plant is 27.8 Ha. Present activities are covered under 21.0 Ha and for expansion no additional land required. The 12 Ha. land was allotted by Govt of Chhattisgarh in Industrial area and balance land area is Private Purchased diverted land. The entire land has been acquired for the project. Of the total area 9.23 Ha (33%) land will be used for green belt development.

6.0 No national park wildlife sanctuary biosphere reserve tiger reserve elephant reserve etc. are reported in the core and buffer zone of the project. The area also does not report to form corridor for Schedule I fauna.

7.0 Total project cost is approximately 120 Crore rupees. The existing industry is providing employment to about 750 people and the proposed employment generation with expansion will be 100 direct employment and 150 indirect employment.

8.0 The targeted production capacity of the plant after expansion will be Sponge Iron Plant- 0.21 MTPA- 0.264 MTPA; Captive Power Plant - 26 MW (No change in capacity); Steel Melting Shop – 0.129 MTPA- 0.211 MTPA; Ferro Alloy- 0.0144 MTPA-0.0198 MTPA; and Rolling Mill – 0.15 MTPA- 0.21 MTPA. The ore for the plant is procured from Shri Bajrang Iron Ore Mines, Hahaladdi. The ore transportation is to be done through Rail and Road Network.

9.0 The electric power requirement for the project will be fulfilled from the existing Captive Power Plant of 26 MW. Additional power will be taken from the grid or from our sister concern.

10.0 Requirement of iron ore would be fulfilled by Our Own Mines as well as Private Sector Mines in Orissa and NMDC, Bailadela Mines. Proposed raw material and fuel requirement and fuel consumption details:

Sponge Iron Plant				
Existing Capacity-2,10,000 TPA			Proposed Capacity-2,64,000 TPA	
01.	Coal	0.21	Coal	0.22
02.	Iron Ore	0.2625	Iron Ore	0.33
03.	Dolomite	0.007	Dolomite	0.0088
Biomass Based Power Plant				
01.	Dolochar	0.0435	Dolochar	0.02175
02.	Rice Husk	0.1042	Rice Husk	0.02350
03.	Coal Fines	0	Coal Fines	0.07000
Steel Melting Shop				
Existing Capacity-1,29,600 TPA			Proposed Capacity-2,11,200 TPA	
01.	Sponge Iron	0.110	Sponge Iron	0.17352
02.	Pig Iron	0.0045	Pig Iron	0.00732
03.	MS Scrap	0.011	MS Scrap	0.01834
04.	Ferro & Non- Ferro alloys	0.0011	Ferro & Non- Ferro alloys	0.00176
Ferro Alloys Plant				
Existing Capacity-14,400 TPA			Proposed Capacity-19,800 TPA	
01.	Manganese Ore	0.0216	Manganese Ore	0.0297
02.	Coke	0.0024	Coke	0.0033
03.	Coal	0.0072	Coal	0.0099
04.	Dolomite	0.0012	Dolomite	0.00165
05.	Ferro Manganese Slag	0.012	Ferro Manganese Slag	0.0165
Proposed Pelletization Plant- 6,00,000 TPA				
	Iron Ore fines			0.51
	Coke			0.0175
	Limestone			0.0075
	Bentonite			0.004
	LDO or			0.00625
	Coal			0.0225

11.0 Water Consumption for the project at present is 2442 m³/day and after proposed expansion, the requirement will be 2823 m³/day and waste water generation will be 22 m³/day Domestic waste water is being treated in Septic Tank and Soak Pit and industrial waste water generated is being treated in Settling Tank and reused for plantation/afforestation. The project

has already obtained consent for drawl of water through Kharun river (1,25,000 m³/month) from water Resources Department, Govt. of Chhattisgarh, vide letter No. 5010/302/TS/AJP/03-D-4 dated 26/10/2004. No ground water will be abstracted.

12.0 The disposal of solid waste is planned by utilizing safely and according to the scientific procedures for its handling, storage and disposal activities. Ash will be extracted and disposed off in wet form. The rejects generated in coal washing will be used in Captive AFBC (Coal Based) Power Plant of SBPIL (sister concern) situated at a distance of 4 Km. Quantitative estimation of solid waste generation from the above units is presented in following table:

Sl	Source and type of solid waste	Existing (Qty in TPA)	After expansion (Qty in TPA)	Utilization/disposal method
1	Fly ash from Power Plant	108816	90468	Brick manufacturing unit and Cement Plant
2	Slag from SMS unit	17000	25344	Brick manufacturing
3	Slag from Ferro Alloys unit	21000	23760	Brick manufacturing
4	Dolochar from SID	66000	52800	Used in AFBC Power Plant (Gondwara unit) as raw material

13.0 There is no court case or violation under EIA Notification to the project or related activity.

14.0 It was informed that earlier application vide online proposal No. IA/CG/IND/31794/2015, dated 15th October 2015 was withdrawn.

15.0 The proposal was considered by the Expert Appraisal Committee (Industry-I) during its 23rd meeting held on 9th to 10th October 2017 for prescribing ToRs for undertaking detailed EIA/EMP study. The PP has made detailed presentation on proposal along with EIA consultant M/s B.S Envirotech, Hyderabad.

16.0 After detailed deliberations, the Committee recommended to issue the ToR and prescribed following specific ToRs, in addition to the general ToR and sector specific ToR enclosed at **Annexure I read with additional ToRs at Annexure-2**, for undertaking detailed EIA-EMP:

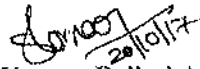
- i. Public Hearing to be conducted by the concerned State Pollution Control Board.
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. All the facilities envisaged in the different environmental clearances shall be brought in the EIA/EMP Report.
- v. Consolidated EIA/EMP shall be prepared detailing all the existing facilities under different environmental clearances in order to facilitate grant of single consolidated environmental clearance.
- vi. The PP shall plan Air Pollution Control Devices (APCD) with the pulsejet bag filters

- vii. The PP shall establish the briquetting plant for utilization of the dust collected from the APCD and others.
- viii. A detailed scheme for treatment of tar sludge and phenolic effluent from the producer gas plant shall be included in the EIA/EMP report
- ix. Action plan for 100% fly ash utilization shall be included in the EIA/EMP report.
- x. Certificate compliance of earlier EC from the Regional office of MoEF&CC shall be submitted along with EIA/EMP.

17.0 The undersigned is directed to inform that the Ministry of Environment, Forest and Climate Change (MoEF&CC) after accepting the recommendation of the EAC (Industry-I), hereby decided to accord ToRs with above specific ToRs, in addition to the general ToR and sector specific ToR enclosed at **Annexure I read with additional ToRs at Annexure-2** for the above project in supersession of earlier ToR vide even number dated 3rd December 2015.


18.0 It is requested that the draft EIA Report may be prepared in accordance with the above mentioned specific ToRs and enclosed generic ToRs and additional ToRs and thereafter further necessary action including conduct of public consultation may be taken for obtaining Environment Clearance in accordance with the procedure prescribed under the EIA Notification, 2006 as amended.

19.0 The ToRs are valid for a period of three years from today i.e. 20.10.2017 and will expire on 19.10.2020. However, this period could be further extended by a maximum period of one year provided an application is made by the project proponent at least three months before the expiry of the validity period, together with updated Form-I, based on proper justification.


 (Sharath Kumar Pallerla)
 Scientist 'F'/Director

Copy to:-

1. **The Secretary**, Department of Environment, Government of Chhattisgarh,
2. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-office complex, East Arjun Nagar, Delhi-110032
3. **The Chairman**, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh
4. **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
5. **The Member Secretary**, Chhattisgarh State Pollution Control Board, Commercial Complex, Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur, Chhattisgarh.
6. **The Member Secretary**, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
7. **The District Collector**, Korba District, Chhattisgarh.
8. **Guard File/Record File/Monitoring File**
9. MoEF&CC website.


 (Sharath Kumar Pallerla)
 Scientist 'F'/Director

GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF INDUSTRY SECTOR

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. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
 - ix. Process description along with major equipment and machineries, process flow sheet (Quantative) from raw material to products to be provided.
 - x. Hazard identification and details of proposed safety systems.
 - xi. 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, Forest and Climate Change 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/PCC 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 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. Co-ordinates (lat-long) of all four corners of the site.
- iv. Google map-Earth downloaded of the project site.
- v. 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.
- vi. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- vii. 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)
- viii. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- ix. Geological features and Geo-hydrological status of the study area shall be included.
- x. 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)
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xii. 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. Land use 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, PM_{2.5}, SO₂, NO_x, 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 NAQPM 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 (60m upstream and downstream) 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.
 - 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 Assessment 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 well 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, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- 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 disposal. Copies of MOU regarding utilization of solid and hazardous waste 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 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.
- x. 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.
- 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. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
- 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 analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- iii. Annual report of health status of workers with special reference to Occupational Health and Safety.
- iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

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. To address the Public Hearing issues, 2.5% of the total project cost of (Rs.crores), amounting to Rs.crores, shall be earmarked by the project proponent, towards Enterprise Social Commitment (ESC). Distinct ESC projects shall be carved out based on the local public hearing issues. Project estimate shall be prepared based on PWD schedule of rates for each distinct Item and schedule for time bound action plan shall be prepared. These ESC projects as indicated by the project proponent shall be implemented along with the main project. Implementation of such program shall be ensured by constituting a Committee comprising of the project proponent, representatives of village Panchayat & District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. No free distribution/donations and or free camps shall be included in the above ESC budget
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 ToRs.
14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report

- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

Sector Specific ToRs

1. Iron/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. 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
3. For Large ISPs, 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.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – annual dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material especially slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. 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.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), details on toxic metal content in the waste material and its composition and end use (particularly of slag).

Executive Summary

Executive summary of the report in about 8-10 pages incorporating the following:

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest, eco-sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
- viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
- ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- x. Likely impact of the project on air, water, land, flora-fauna and nearby population
- xi. Emergency preparedness plan in case of natural or in plant emergencies
- xii. Issues raised during public hearing (if applicable) and response given
- xiii. CSR plan with proposed expenditure.
- xiv. Occupational Health Measures
- xv. Post project monitoring plan

F. No. J-11011/531/2007-IA.II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi – 110003

E-mail: dirind-moeefcc@gov.in
Tel: 011-24695368

Dated: 9th April, 2020

To

Shri. S.K.Goyal,
Director,
M/s. Shri Bajrang Power and Ispat Limited,
village Borjhara, Urla – Guma Road,
Urla Industrial Area,
Raipur, Chhattisgarh – 493221.
Tel: No. 0771-4288019; Email: info.bjr@goelgroup.com

Subject: Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting – 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB -18 MW; Biomass – 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Bajrang Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh – Amendment in Terms of Reference (ToR) and validity extension of ToR – regarding.

Sir,

1. This refers to the application of M/s. Shri Bajrang Power & Ispat Limited made vide online proposal no. IA/CG/IND/142035/2020 dated 10/02/2020 along with the Form 3, revised Form-I, copy of pre-feasibility report and sought for amendment in the ToR accorded by the Ministry vide letter no. J-11011/531/2007-IA.II(I) dated 20/10/2017. Further, PP also sought for the validity extension of ToR for another one year.

2. The proposal cited above was considered during the 16th meeting of Reconstituted Expert Appraisal Committee [EAC] (Industry-I) held on 24-25th February, 2020. The EAC proceedings of the proposal cited above is given as below.

Details submitted by the project proponent

3. M/s. Shri Bajrang Power & Ispat Limited have obtained Terms of Reference (TOR) from Ministry vide letter no. J-11011/531/2007-IA.II(I) dated 20/10/2017 for expansion of their Integrated Steel Plant. The ToR was basically issued for expansion of production

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting – 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB -18 MW; Biomass – 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Bajrang Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".

capacity and change in configuration of Integrated Steel Plant following units at Urla Industrial Area, Village Borjhara, District Raipur, Chhattisgarh.

- i. Sponge Iron - 0.21 to 0.264 MTPA
 - ii. Captive Power Plant, Capacity 26 MW
 - iii. Steel Melting -- 0.129 to 0.211 MTPA
 - iv. Ferro Alloy- 0.0144 to 0.0198 MTPA
 - v. Rolling Mill- 0.15 to 0.21 MTPA
 - vi. New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel.
4. The configuration and the production capacities envisaged in the Terms of Reference (TOR) accorded by the Ministry vide letter no. J-11011/531/2007-IA.II(1) dated 20/10/2017 is furnished as below:

Existing Production capacity and configuration	ToR Granted Total capacity after expansion and configuration	Remark
Sponge Iron - 2,10,000 TPA 2 x 350 TPD x 300 days	Sponge Iron - 2,64,000 TPA 2 x 400 TPD x 330 days	Sponge iron process optimization with same 2 kilns by use of good quality coal
Total Power Plant - 26 MW (CPP) WHRB - 18 MW CPP - 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	WHRB - 18 MW CPP - 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	No change in capacity Change in fuel Mix for CPP. To include coal as fuel in addition to Rice Husk & Dolochar
SMS - 1, 29,600 TPA 6 x 8T Induction Furnace CTE for change in configuration from 6 X 8 T to 3 X 15 T has been granted by CECB	SMS - 2, 11, 200 TPA	Two more induction furnace of 15 T each along with continuous casting machine and LRF to be installed for additional production 81,600 TPA.
Ferro Alloys - 14,400 TPA 2 x 4 MVA (SAF) (Combined EC of Ferro & Biomass)	Ferro Alloys - 19,800 TPA 1 x 5 MVA + 1 x 6 MVA (SAF)	Existing furnaces 4 MVA - 2 Nos. will be replaced by higher capacity transformer 1X5 MVA 1X6 MVA
Rolling Mill - 0.15 MTPA	Rolling Mill - 0.21 MTPA	Optimization of production capacity of Rolling Mill by curtailing Idle

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB - 18 MW; Biomass - 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. SRII Rayang Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".

Pellet plant (0.6 MTPA) CTE granted by CECB, but plant yet not installed	Proposed - Pellet Plant (0.6 MTPA)	running hours. New unit – Applying for EC
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5. The amendment envisaged in the Terms of Reference (TOR) dated 20/10/2017 is furnished as below:

Existing Production capacity and configuration	Expansion proposal (capacity after expansion and configuration)		Remark
	TOR granted on 20/10/2017	TOR Amendment Requested	
Sponge Iron - 2,10,000 TPA 2 x 350 TPD x 300 days	Sponge Iron - 2,64,000 TPA 2 x 400 TPD x 330 days	Sponge Iron - 2,64,000 TPA 2 x 400 TPD x 330 days	No Change Sponge iron process optimization with same 2 kilns by use of good quality coal
Total Power Plant – 26 MW (CPP) WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolochar	WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolochar	No change Change in fuel Mix for CPP To include coal as fuel in addition to Rice Husk & Dolochar
SMS – 1, 29,600 TPA 6 x 8T Induction Furnace CTE for change in configuration from 6 X 8 T to 3 X 15 T has been granted by CECB	SMS – 2, 11, 200 TPA 6 x 8T + 2 x 15 T	SMS – 2, 11, 200 TPA 5 x 15T	No change Two more induction furnace of 15 T each along with continuous casting machine and LRF to be installed for additional production 81,600 TPA. CTE for change in configuration from 6 x 8T to 3 x 15T has been granted by CECB
Ferro Alloys – 14,400 TPA 2 x 4 MVA (SAF)	Ferro Alloys – 19,800 TPA 1 x 5 MVA + 1 x	Ferro Alloys – 19,800 TPA 1 x 5 MVA + 1 x 6	No change Existing furnaces 4 MVA – 2 Nos.

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB -18 MW; Biomass - 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Sanyam Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".

Existing Production capacity and configuration	Expansion proposal (capacity after expansion and configuration)		Remark
	TOR granted on 20/10/2017	TOR Amendment Requested	
(Combined EC of Ferro & Biomass)	6 MVA (SAF)	MVA (SAF)	will be replaced by higher capacity transformer 1X5 MVA 1X6 MVA
Rolling Mill - 0.15 MTPA	Rolling Mill - 0.21 MTPA	Rolling Mill - 0.21 MTPA	No change Optimization of production capacity of Rolling Mill by curtailing Idle running hours.
Pellet plant (0.6 MTPA) CTE granted by CECB, but plant yet not installed	Proposed - Pellet Plant (0.6 MTPA)	Proposed - Pellet Plant (0.6 MTPA)	No change New unit - Applying for EC
Coal Washery- 1.2 MTPA	Coal Washery- 1.2 MTPA	Coal Washery- 1.2 MTPA	No change in capacity
Iron Ore Washery Plant	-	Capacity - 4,00,000 TPA	Amendment in Terms Of Reference (TOR) for inclusion of Proposed Iron Ore Washery Plant, Titanium Slag Plant & Pig Iron Plant
Titanium Slag Plant	-	36,000 TPA	
Pig Iron Plant	-	20,000 TPA	

6. In addition to the above, the project proponent also sought for validity extension of ToR from 20/10/2020 to 19/10/2021 in order to facilitate the draft EIA report preparation and submission of the same to CECB for conducting public consultation.

Observations of the Committee:

7. The Committee noted that the instant project site is located at Urla Industrial Area [CEPI score - 70.77] which is Critically Polluted Area as per the Ministry's O.M. dated 31/10/2019.

Recommendations of the Committee:

8. In view of the foregoing and after detailed deliberations, the Committee recommended for the amendment in ToR dated 20/10/2017 as mentioned above along with extension of validity of ToR till 19/10/2021 subject to the following additional specific ToRs in

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB - 18 MW, Biomass - 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Sojung Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".

compliance to the Ministry's O.M. No. 22-23/2018-IA.III dated 31/10/2019 pertaining to consideration of the proposals located in critically polluted areas:

- i. Action plan for control of fugitive emissions from the plant shall be furnished.
- ii. Action plan for transportation of raw materials and finished products shall be submitted.
- iii. Action plan for green belt development covering 40% of the total plot area shall be furnished.
- iv. Action plan for CER shall be 2 times the amount calculated as per provisions of the Ministry's O.M. dated 1/5/2018.
- v. Domestic wastewater shall be treated in the STP and shall be reused.
- vi. PP shall use mechanized pig casting machine. Manual casting using casual labour shall not be permitted for safety and health reasons.
- vii. Fourth Hole fume extraction system shall be used on SAF/PAF.
- viii. PP shall phase out ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water.
- ix. PP shall submit 'to the scale' engineering layout of the entire facility.
- x. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
- xi. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.
- xii. Particulate matter emissions from stacks shall be less than 30 mg/Nm³.
- xiii. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.
- xiv. Action plan for maintaining zero liquid discharge shall be submitted.

Decision of MoEF&CC

9. The Ministry of Environment, Forest and Climate Change (MoEF&CC) has considered the aforesaid proposal based on the recommendations of the Expert Appraisal Committee (Industry 1) and hereby decided to grant amendment in the ToR dated 20/10/2017 as given below:

(i). The subject matter of the ToR accorded vide letter dated 20/10/2017 shall read as below:

Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB -18 MW; Biomass - 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Bajrang Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh.

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB -18 MW; Biomass - 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Bajrang Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".

(ii). The table given at paragraph no.3 of the ToR accorded vide letter dated 20/10/2017 shall read as below:

Existing Production capacity and configuration	ToR Granted Total capacity after expansion and configuration	Remark
Sponge Iron - 2,10,000 TPA 2 x 350 TPD x 300 days	Sponge Iron - 2,64,000 TPA 2 x 400 TPD x 330 days	Sponge iron process optimization with same 2 kilns by use of good quality coal
Total Power Plant - 26 MW (CPP) WHRB - 18 MW CPP - 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	WHRB - 18 MW CPP - 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	No change in capacity Change in fuel Mix for CPP. To include coal as fuel in addition to Rice Husk & Dolochar
SMS - 1, 29,600 TPA 6 x 8T Induction Furnace CTE for change in configuration from 6 X 8 T to 3 X 15 T has been granted by CECB	SMS - 2, 11, 200 TPA	Two more induction furnace of 15 T each along with continuous casting machine and LRF to be installed for additional production 81,600 TPA.
Ferro Alloys - 14,400 TPA 2 x 4 MVA (SAF) (Combined EC of Ferro & Biomass)	Ferro Alloys - 19,800 TPA 1 x 5 MVA + 1 x 6 MVA (SAF)	Existing furnaces 4 MVA - 2 Nos. will be replaced by higher capacity transformer 1X5 MVA 1X6 MVA
Rolling Mill - 0.15 MTPA	Rolling Mill - 0.21 MTPA	Optimization of production capacity of Rolling Mill by curtailing idle running hours.
Pellet plant (0.6 MTPA) CTE granted by CECB, but plant yet not installed	Proposed - Pellet Plant (0.6 MTPA)	New unit - Applying for EC
Iron Ore Washery Plant	4,00,000 TPA	New unit - Applying for EC
Titanium Slag Plant	36,000 TPA	New unit - Applying for EC
Pig Iron Plant	20,000 TPA	New unit - Applying for EC

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with cool gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB - 18 MW; Biomass - 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Jayang Power & Ispat Limited located at Village Barjhora, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".

(iii). The line no. 1 paragraph no.5 of the ToR accorded vide letter dated 20/10/2017 shall read as below:

The land area acquired for the plant is 31.8 ha.

(iv). The line no. 1 paragraph no.7 of the ToR accorded vide letter dated 20/10/2017 shall read as below:

Total cost of the project is approximately INR 186 Crores.

(v). The table given at paragraph no.10 of the ToR accorded vide letter dated 20/10/2017 shall read as below:

Sr. No	Raw Materials (Input)	Quantity (TPA)			Source	Mode of Transportation
		TOR granted	TOR amendment requested	Remark		
1.	Iron Ore fines	306000	306000	1,00,000 TPA will be subjected to Washing in Washery plant	Mines-Habhaladdi, NMDC, Bailadila	By Road
2.	Iron Ore fines	612000	612000			
3.	Pig Iron	8784	8784	External production will not be there 20,000 TPA will be produced of which 8784 TPA will be consumed and balance will be disposed as product		
4.	Coke	24960	24960+12,600	Increase in Coal/Coke by 12600 TPA	Nagpur & Jharkhand	
5.	Coal	302880	302880+12,600		SECL, Imported	
6.	Ilmenite	-	72,900	New raw material	IREL & Other Suppliers	
7.	Graphite	-	900	New raw material	Imported/Indigenous	
8.	Manganese Ore	35640	35640	No Change	Mines-Garividi, MOIL	
9.	Coal Fines	84000	84000	No Change	Own plant	
10.	LDO	7500	7500	No change	Bhilai	
11.	Furnace Oil	7500	7500	No change	Bhilai	
12.	Limestone	9000	9000	No change	Katni	
13.	Bentonite	4800	4800	No change	Bluj and local market	
14.	Ferro and Non-Ferro	2112	2112	No change	Own Plant	

ToR amendment for the project titled "Expansion of Integrated Steel Plant Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.21 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (SVHRB -18 MW, 8 MW, 8 MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Chhappi Power & Ispat Limited located at Village Borjhara, Urla-Gumra road, Urla Growth Centre, District Raipur, Chhattisgarh".

Sr. No	Raw Materials (Input)	Quantity (TPA)		Remark	Source	Mode of Transportation
		TOR granted	TOR amendment requested			
	Alloys					
15.	Dolomite	12540	12540	No change	Mines-Mandla, Katni	
16.	Ferro Manganese Slag	19800	19800	No change	Own Plant	
17.	Rice Husk	28200	28200	No change	Local Rice Mill	
18.	Dolochar	26100	26100	No change	Own plant	

(v). The line no. 1 & 2 of paragraph no.11 of the ToR accorded vide letter dated 20/10/2017 shall read as below:

Total water consumption of the project after the expansion will be 3537 m³/day.

(vi). After specific ToR (x). given at paragraph no.16 of the ToR accorded vide letter dated 20/10/201, the following is inserted:

- xi. Action plan for control of fugitive emissions from the plant shall be furnished.
- xii. Action plan for transportation of raw materials and finished products shall be submitted.
- xiii. Action plan for green belt development covering 40% of the total plot area shall be furnished.
- xiv. Action plan for CER shall be 2 times the amount calculated as per provisions of the Ministry's O.M. dated 1/5/2018.
- xv. Domestic wastewater shall be treated in the STP and shall be reused.
- xvi. PP shall use mechanized pig casting machine. Manual casting using casual labour shall not be permitted for safety and health reasons.
- xvii. Fourth Hole fume extraction system shall be used on SAF/EAF.
- xviii. PP shall phase out ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water.
- xix. PP shall submit 'to the scale' engineering layout of the entire facility.
- xx. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
- xxi. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.
- xxii. Particulate matter emissions from stacks shall be less than 30 mg/Nm³.

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill- 0.12 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (BTHRB -18 AH; 50 m/s - 5 MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Shri Jayprakash Power & Ispat Limited located at Village Borjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".

xxiii. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.

xxiv. Action plan for maintaining zero liquid discharge shall be submitted.

(vii). The paragraph no.19 of the TOR recorded vide letter dated 20/10/2017 shall read as below:


The ToR is valid till 19/10/2021. The baseline data and the public consultation shall not be older than 3 years at the time of submission of the proposal for Environmental Clearance, as per ToR prescribed.

10. All other terms and conditions mentioned in the earlier TOR letter no. J-11011/531/2007-1A-II(I) dated 20/10/2017 shall remain unchanged.

11. The PP shall obtain fresh Terms of Reference in case of change in scope of the project if any.


This issues with the approval of the Competent Authority.

Yours faithfully,


(A.K. Agrawal)
Director

Copy to:-

1. Secretary, Department of Environment, Government of Chhattisgarh Secretariat Raipur.
2. Deputy Director General (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 44000.
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-11002.
4. Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
5. Member Secretary, Central Ground Water Authority, West Block -II, Wing -3, Sector 1, R.K.Puram, New Delhi - 110086.
6. District Collector, Raipur, Chhattisgarh.
7. Guard File / Record file / Monitoring file.
8. MOEF&CC Website.


(A.K. Agrawal)
Director

ToR amendment for the project titled "Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting - 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill - 0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel), 26 MW Captive Power Plant (WHRB -18 MW, Biomass - 8MW), Iron ore washery plant of 4,00,000 TPA, Titanium slag plant of 36,000 TPA and pig iron plant of 20,000 TPA by M/s. Steel Projects Power & Ispat Limited located at Village Barjhara, Urla-Guma road, Urla Growth Centre, District Raipur, Chhattisgarh".