सत्यमेव जयते

State Level Environment Impact Assessment Authority, Jharkhand
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Letter No.- **EC/SEIAA/2018-19/2167/2019/** Ranchi, Date:

To: **Balmukund Sponge and Iron Pvt. Ltd.**
(Manager),
M/s Balmukund Sponge and Iron Pvt. Ltd.,
Village - Manjhiladih, P.O. - Gadisrirampur
Dist – Giridih, Jharkhand.

Sub: Prescribing of ToR to **"Enhancement in production from 123900 TPA (350 TPD) to 274068 TPA (828.0 TPD) of M S Billet & TMT Bars 246926 TPA (746 TPD) by installation of four nos of Induction furnace of capacity 15 TPH, two rolling mill of capacity 371 TPD and 375 TPD and installation of 2 Induction Slag Grinder of capacity 47000 TPA of M/s Balmukund Sponge & Iron Pvt. Ltd. (Mega Division) at Vill. : Manjhiladih, P.O. : Gadisrirampur, Dist. : Giridih, Jharkhand" regarding (Proposal No. : SIA/JH/IND/39010/2019)**

Ref: Your application no.: Nil Dated: 10.07.2019.

Sir,

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 3 (a) Industrial Projects - 1 as per EIA Notification, 2006.

As per EIA notification 2006 the expansion proposal is coming under category '3(a)' and requires environmental clearance under category B1 i.e. from State Environment Impact Assessment Authority, Jharkhand.

BALMUKUND SPONGE & IRON PVT.LTD.is a company incorporated on 14th July 1999 having its registered office at 603, Shanti Kunj Apartment, Chajjubagh, Patna –1. The Company is promoted by Sri Nawal Kumar Kanodia. The existing manufacturing facility MBF (1x110 TPD), Induction Furnaces (4x7 MT & 1x15 MT = 350 TPD) with CCM, Iron Ore Beneficiation Plant (94000 TPA Throughput) & one Re-Rolling Mill (50 TPD) of the company is located at Manjhiladih, Chatro Tundi Road, P.O. Gadisrirampur, Dist. Giridih (Jharkhand) which is ideally located in terms of raw material, power, skilled man power and logistics.

The Company has obtained Consent to Establish (CTE) vide letter No. N-356 dated 13.06.2005 for establishment of Induction Furnaces of 60 TPD and Rolling Mill of 50 TPD. The Company has also obtained Environmental Clearance from MoEF & CC, Govt. of India vide F. No. J-11011/870/2008-IA II (I) Dt: 28th Jul.' 2010. Consent to Establish (CTE) was granted by JSPCB vide Memo No. 3576 Dt: 18.07.2008 for MBF (1x110 TPD, 39000 TPA) & vide letter No. EC/SEIAA/2013-14/297/2014/1525 Dt: 25.08.2015 for Induction Furnaces (2x7 MT & 1x15 MT = 290 TPD, 102660

TPA) with CCM, Iron Ore Beneficiation Plant (94000 TPA Throughput) from SEIAA, Jharkhand & CTE vide letter No.B4109 dt.16.10.2015 from JSPCB, Jharkhand has been obtained.

The Company has obtained Consent to Operate vide letter under Ref. No. JSPCB/HO/RNC/CTO-2335595/2018/1314 dated 13.08.2018 valid till 30.06.2020 for all the units referred herein from Jharkhand State Pollution Control Board.

The proposed manufacturing facilities of M.S. Billet – 150168 TPA, TMT Rod/M.S. Coil – 246926 TPA (After Modernization -M.S. Billet – 274068 TPA, TMT Rod/M.S. Coil – 246926 TPA) & two Induction Slag Grinders having grinding capacity of 47000 TPA segregating 3760 TPA of Iron Metal for the Company will be located at Manjhiladih, Chatro Tundi Road, P.O. Gadisrirampur, Dist. Giridih (Jharkhand) within the existing industrial premises.

The proposed enhancement by modernization of existing facility will take place in existing premise at Manjhiladih P.O. Gadisrirampur, Dist. Giridih in the State of Jharkhand on Survey Total land of 26.354 Acres at mouza Manjhiladih, Distt. Giridih out of which 4.9375 Acre land in Thana No.267 Khata no.5,20,30,33,38,39 & 79 Plot No. 942, 943, 944, 945, 946, 947, 955, 958, 965, 966, 967, 968, 973, 982, 984, 985, 987 & 988. The site lies at latitude 24°7'9.36"N and longitude 86°21'15.62"E. The project is located in Survey of India Topo Sheet no. 72L/8.

RAW MATERIAL REQUIRED :

Facilities	Raw Material	Existing Quantity in TPA	Additional/ proposed Quantity in TPA	Total quantity required after expansion
M.S. Billet	Sponge Iron	97400	115500	212900
	Pig Iron	38045	46110	84155
	Iron & Steel Scrap	8445	9680	18125
	Silico Manganese	6195	7508	13703
TMT Rod/Bar	M.S. Billet	16550 (proposed dismantle)	274350	274350
Ind. Slag Grinder	Induction Furnace Slag	0	47000	47000

Proposed Scenario of Expansion project :

Sl. No.	Types of unit	Existing installed capacity	Proposed capacity (modernization / expansion)	Total capacity after modernization / expansion	Facilities

1.	Ind. Furnace & CCM (M.S. Billet)	123900 TPA (1x 15T + 4x7T)	150168 TPA (4x7T replaced with 4 x15T)	274068 TPA (5 x 15T)	Ind. Furnace & CCM (M.S. Billet)
2.	Re-Rolling Mill (M.S. Coil/TMT Bar	16550 TPA (1x 50 TPD)	246926 TPA (Existing 1 x50 TPD replaced with 1x371 TPD + 1x375 TPD)	246926 TPA (1x371 TPD + 1x375 TPD)	Re-Rolling Mill (M.S. Coil/TMT Bar
3.	Induction Slag Grinders(Iron Metal)	0 TPA	47000TPA	47000 TPA	Induction Slag Grinders(Iron Metal)
4.	MBF (Pig Iron)	39000 TPA	No Expansion	39000 TPA	MBF (Pig Iron)
5.	Iron Ore Beneficiation	94000 TPA	No Expansion	94000 TPA	Iron Ore Beneficiation

Existing status of EC :

No. of EC Granted/ Proposed	Manufacturing Facilities	Product	Capacity	EC grant details
M.S. Billet (Old)	Induction Furnace	M.S. Billet	21240 TPA	--
1st EC (Granted) EAC, New Delhi	Mini Blast Furnace	Pig iron	39000TPA (110TPD)	F. No. J-11011/870/2008-IA II (I) on dated 28th Jul 2010

2nd EC (Granted SEIAA, Jharkhand)	Induction Furnace(SMS with CCM)	M S Billet	102660TPA (290TPD)	EC/SEIAA/2013-14/297/2014/1525 on dated 25.08.2015_
	Iron ore beneficiation plant	Iron ore beneficiation	94000TPA (266TPD)	
3rd EC (Proposed)	Expansion of Induction Furnace	M.S. Billet	274068 TPA	
	Rolling Mill	M.S.Coil/TMT Bar	246926 TPA	
	Slag Crusher	-	4700 0TPA	

All the materials required for construction and operation of the plant will be transported through road. State Highway is at a distance of nearly 0.75 Km from the site.

Power requirement for the existing unit will be 17.0 MV is met from Damodar Valley Corporation and for the proposed expansion 6.0 MVA power will be required for existing & proposed plants that shall be met from Damodar Valley Corporation.

Total water requirement will be 60 KLD out of which 20 KLD will be make up water and will be sourced from Rain water harvesting pond and bore well. Waste water generated from the cooling tower blow down will be settled in the settling tank and recirculated in the process. So the plant will operate with zero effluent discharge technology. Domestic waste water will be treated through soak pit via septic tank.

The cost of the project, estimated at Rs 41.55 Crore,

DFO, Wildlife Hazaribagh vide letter no. 1575, dated 06.08.19 has certified that the Parashnath Wildlife Sanctuary is located at a distance 23105 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

The DFO, Giridih East Division vide letter no. 2411, dated 17.08.19 is misleading. It is not clear as to whether the project site is situated beyond 250 m of nearest notified forest or not.

The CO, Giridih vide memo no. 1880, dated 26.07.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

PP has presented the compliance of previous EC / CTO / CTE. In expansion proposal no change in project area is envisaged. The raw material requirement and material balance of the proposed

expansion has been presented also. The requirement of water & power, solid waste & disposal methodology, stack emission & online monitoring system were presented.

The committee decided to recommend for issuance of ToR with the provisions of the following specific conditions :

i. Setting of fixed sprinkler in different dusty position should be authenticate with photographs.
ii. Material balance of rolling mill of all sections.
iii. Status of existing green belt area.
iv. Enhancement of CSR cost.
v. Source of water requirement and permission from competent authority & its impact on ground / surface water.
vi. The mass balance for each section of the proposed modernization / expansion has to be provided as per MoEF&CC guidelines viz. input raw materials and resulting products solid waste and gaseous wastes.
vii. The firm quantitative linkages for the disposal of solid wastes have to be provided to ascertain the complete recycling of solid waste resulting during production stage as per guidelines of MoEF&CC.
viii. PP to provide plant layout & drawings of present & revised billet transport process indicating facilities / list of equipment to charge hot billets from CCM.
ix. Details of process including hot charging between CCM & heating furnace before & after expansion.
x. Computation of Material, power & fuel balance with potential saving from the proposed switch over of the technology.
xi. Details of technology / energy option as per best manufacturing manufacturing practices prevailing in country.
xii. Provide transport distance between CCM and rerolling mills indicating horizontal, vertical and lateral distance.
xiii. Average residence time of hot billet, Casting speed to achieve targeted thorough put of production mix.
xiv. Action to be taken to mitigate heat stress impact on people's health and productivity in SSRM.
xv. Air pollution changes after establishment & at present.
xvi. Maintenance Management system in practice in unit & facilities available with the unit.
xvii. Energy and power intensity of the unit.

SEAC, Jharkhand has suggested the ToRs in its 79th meeting dated 26th & 27th September, 2019 and SEIAA, Jharkhand has approved the ToRs in its meeting held on 04th October, 2019.

The TORs prescribed for undertaking detailed EIA study are as follows:

A. Standard Terms of Reference

1. Executive Summary

2. Introduction :

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

3. Project Description :

i. Cost of project and time of completion.

ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. List of raw materials required and their source along with mode of transportation.
v. Other chemicals and materials required with quantities and storage capacities.
vi. Details of Emission, effluents, hazardous waste generation and their management.
vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided.
ix. Hazard identification and details of proposed safety systems.
x. Expansion/modernization proposals:
   a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing / existing operation of the project from SPCB shall be attached with the EIA-EMP report.
   b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification, 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. **Site Details :**
   i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
   ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places).
   iii. Details w.r.t. option analysis for selection of site
   iv. Co-ordinates (lat-long) of all four corners of the site. .
   v. Google map-Earth downloaded of the project site.
   vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
   vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
   viii. Land use break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
   ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area.

x. Geological features and Geo-hydrological status of the study area shall be included.

xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)

xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.

xiii. R&R details in respect of land in line with state Government policy.

5. Forest and wildlife related issues (if applicable) :

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

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

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

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

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

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

6. Environmental Status :

i. Determination of atmospheric inversion level at the project site and site-specific micro- meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

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

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF & CC, if yes give details.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio-economic status of the study area

7. Impact and Environment Management Plan :

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

ii. Water Quality modelling - in case of discharge in water body.

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

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

vi. Measures for fugitive emission control.

vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.

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

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less 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. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

iv. Annual report of heath status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy :

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC) :

i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

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

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR METALLURGICAL INDUSTRIES (FERROUS & NON FERROUS)

i. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).

ii. Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
iii. Details on installation/activation of opacity meters with recording with proper calibration system.
iv. Details on toxic metals including mercury, arsenic and fluoride emissions.
v. Details on stack height requirement for integrated steel.
vi. Details on ash disposal and management -Non-ferrous metal.
vii. Complete process flow diagram describing production of lead/zinc/copper/ aluminium, etc.
viii. Raw materials substitution or elimination.
ix. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation.
x. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium.
xi. Details on solvent recycling.
xii. Details on precious metals recovery.
xiii. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
xiv. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
xv. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
xvi. Trace metals in waste material especially slag.
xvii. Plan for trace metal recovery.
xviii. Trace metals in water.

C. ADDITIONALATOR FOR INTEGRATED STEEL PLANT

i. Respirable Suspended particulate matter (RSPM) present in the ambient air must be analyzed for source analysis - natural dust/RSPM generated from plant operations (trace elements). The RSPM shall also be analyzed for presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction, where applicable. Chemical characterization of RSPM and incorporating of RSPM data.
ii. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
iii. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
iv. Plan for slag utilization
v. Plan for utilization of energy in off gases (coke oven, blast furnace).

D. Other

i. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
ii. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

iii. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M) , dated 12.01.2017.

Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No.-**EC/SEIAA/2018-19/2167/2019/** 565 Dated: 21.10.2019,

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.
2. Member Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.