

F. No. J-11011/758/2009-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 18th April 2017

To

**M/s. Bravo Sponge Iron Pvt. Ltd.,
Mahuda, P.S- Rukni,
DIST-Purulia, West Bengal
E-mail: bravosponge15@gmail.com
Fax: 91-33-66255252**

Subject: Expansion of Sponge Iron Plant from 195 TPD to 395 TPD and installation of Billet Manufacturing Unit (600 TPD), Rolling Unit 600 TPD along with Captive Power Plant (18 MW) located at Village Mahuda, PO-Rukni, Dist: Purulia, West Bengal by M/s. Bravo Sponge Iron Pvt. Ltd. –Environmental Clearance regarding.

Sir,

This has reference to your online application No. IA/WB/IND/32308/2015 dated 30th December 2016 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The ToRs to the project were prescribed by the Ministry vide letter of even number dated 03.12.2015. The proposed project activity is listed at Sl.No. 3(a) in Metallurgical industries under Category 'A' of the Schedule of EIA Notification 2006.

2.0 The proposal for expansion of sponge iron plant was initially received in the Ministry for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its meeting and prescribed ToRs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project dated 3.12.2015. Based on the TORs prescribed to the project, the project proponent applied for environmental clearance to the Ministry online on 30.12.2016 along with EIA/MP report.

3.0 The project of M/s Bravo Sponge Iron Pvt. Ltd located in village Mahuda, Tehsil-Raghunathpur, District-Purulia is for setting up expansion of its existing project from 0.062 million ton per annum sponge Iron to production of 0.19 million tons of TMT rods per annum (million TPA). The entire land of 16.30 ha has been acquired for the project is. No forest land is involved. No river passes through the project area. No water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

4.0 The topography of the area is gentle sloping with isolated hillocks highest contour 205 m reported to lie between 23° 32' 54.05"N to 23° 33' 00.02"N latitude and 86° 32'55.42"E to 86° 32'57.44"E longitude in survey of India topo sheet no F/45C/10 at an elevation of 194m AMSL. The ground water table reported to range between 2.5 and 5.5m below the land surface during post-monsoon season and 4.5 and 11.5m below the land surface during the pre-monsoon season. No national park, no wild life sanctuary, no biosphere reserve, no tiger reserve nor elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for schedule-I fauna.

5.0 The targeted production capacity of TMT rods is 0.19 million TPA. The Iron ore for the plant would be procured from Kalinga Mining Corporation (mine owner & exporter)Joruri, Keonjhar, Odisha and Non-coking coal to be imported from Saraogi PTE Ltd., Singapore. The ore transportation will be done through rail, ship and road fully covered.

6.0 The water requirement of the project is estimated as 1,18,105 m³/day out of which makeup water requirement will be 1119.04 m³/day which will be obtained from Mautore Dam near Cheliyama through DVC. Treated water to recycle will be 1,17,082.88m³/day, waste water generated will be 47.768m³/day. The power requirement of the project is estimated as 30 MW, out of which 18 MW is own generation and 12 MW will be obtained from DVC.

7.0 Ambient air quality monitoring has been carried out at 8 locations during December 2015 to February 2016. And data submitted indicated PM10 (44.3 µg/m³ to 83.5 µg/m³), PM2.5 (26.6 µg/m³ to 42.7 µg/m³), SO₂ (11.6 to 13.2 µg/m³), NO_x (11.4 to 19.3 µg/m³). It has been reported that there is no settlement in the core zone and no R&R is involved. SO₂ content of flue gas coming out of AFBC power plant is estimated to be 10.82gm/s which is to be reduced to minimum by lime scrubbing of flue gas with lime. Lime will form Gypsum sludge when combined SO₂. Gypsum shall be filtered, dried and sold as by-product.

8.0 It has been reported that a total char of 18,900 TPA from DRI kilns will be used to generate power through FBC, 52,920 TPA fly ash will be supplied to brick manufacturers for which agreement has been made and part will be supplied to cement manufacturers. 23,320 TPA. If slag being equivalent to river sand can be used in construction work or filled up low land. Land acquired at Alkusha and Dhulabad can be used to dump waste if so required. 3.4 ha of land at Alkusha & 0.28 ha of land at Dhulabad under Para PS of Purulia Dist has been muted in the name of Bhalotia Metcoke Pvt Ltd under Mutation case no 50/2011 and 38/2011 by office of the block land and land reforms officer, Para, Purulia dated 08.02.2012 and an agreement has been made b/w M/s Bhalotia Metcoke Pvt Ltd and M/s Bravo Sponge Iron Pvt Ltd for BSIPL to dump solid waste generated from their Integrated Steel Plant at Alkusha and Dhulabad.

9.0 The public hearing of the project was held on 4th November 2016. The issues raised in Public hearing inter-alia include disposal of char from sponge iron plant, to develop infrastructure of local school, measures to be taken to see that local agricultural land are not affected due to the expansion project, training to local youth and subsequently priority to local employment, extension of health care facility to all possible villages and more over ensuring safety of work men of project.

10.0 The capital cost of the project is Rs 156.34 Crores and capital cost for environmental protection measures is Rs 625 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 64 Lakhs. The proponent has mentioned that there is no court case to the project or related activity. Employment potential for the proposed expansion is 350.

11.0 The company proposes to invest on the Enterprise Social Commitment (ESC) activities. For this purpose, the company has allocated Rs. 400.87 Lakhs. This fund shall be utilized over a period of 5 years. Company has identified following areas, to be considered for implementing the ESC activities in the context of the local scenario of the area:

S. No	ESC Activities	Budget allocation in Lakh	Period of completion after CTE
1	Building a community centre having indoor game facilities, library, furniture and utensils for social functions which will also act as emergency shelter for needy people	170.50	2 yrs
2	Installing solar lighting system by the side of road passing through slum and connecting project site to state high way.	35.27	1 yr
3	Supply of modular latrines to poor needy persons as a major step towards sanitation	15.10	1 yr
4	Vocational training program for local youth in various trades so as to make them fit for employment and there by improve economy.	100.00	1 yr & 4 months
5	Organizing sports meet and cultural activities in the brand name of TMT rods	35.00	6 months
6	Development of social forestry by supply of seedlings free of cost to villagers and beautification of locality by creating parks	45.00	3 yrs
	Total	400.87	

12.0 The proposal was considered during the 15th meeting of Expert Appraisal Committee [EAC] (Industry-I) held on 2nd – 3rd February 2017 and recommended the project for Environmental Clearance and stipulated Specific Conditions along with other environmental conditions while considering for accord of environmental clearance.

13.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant environmental clearance to the above mentioned proposal for expansion of Sponge Iron Plant from 195 TPD to 395 TPD and installation of Billet Manufacturing Unit (600 TPD), Rolling Unit 600 TPD along with Captive Power Plant (18 MW) located at Village Mahuda, Po-Rukni, West Bengal by **M/s. Bravo Sponge Iron Pvt. Ltd.** under the provision of EIA Notification dated 14th September, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.

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- ii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant etc. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
 - iii. The COD level in the effluent should be maintained at the prescribed standard and the STP effluent is to be recycled within the premises.
 - iv. No effluent shall be discharged outside the plant premises and 'zero' discharge shall be adopted.
 - v. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
 - vi. Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. ETP sludge should be disposed off scientifically.
 - vii. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.
 - viii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 shall be followed.
 - ix. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414 (E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
 - x. Regular monitoring of influent and effluent, surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.
 - xi. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.
 - xii. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.
 - xiii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement

and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office.

- xiv. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xv. 10-15 m wide green belt should be developed all along the boundary of the plant and in all 33% of the area should be developed green by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines. The complete plantation should be completed in 3 years.
- xvi. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvii. An amount equal to Rs. 400.87 Lakhs, shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan as indicated by the project proponent shall be implemented. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xviii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xix. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xx. The project proponent shall provide for LED lights in their offices and residential areas.
- xxi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM₁₀, PM_{2.5}, SO₂ and NO_x are anticipated in consultation with the SPCB. Data on ambient

air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneshwar and the SPCB/CPCB once in six months.

- iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.
- v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dB(A)) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- ix. Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEF&CC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneshwar. The funds so provided shall not be diverted for any other purpose.
- x. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xi. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF&CC at Bhubaneshwar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneshwar/ CPCB / SPCB shall monitor the stipulated conditions.

- xiii. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MoEF&CC at Bhubaneswar by e-mail.
- xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.
- xv. Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

14.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

15.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

16.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(Sharath Kumar Pallerla)
Scientist 'F'

Copy to:-

1. The Secretary, Department of Environment, Government of West Bengal.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110032.
3. The Chairman, West Bengal Pollution Control Board, Paribesh Bhavan, 10A, Block-L.A., Sector III, Salt Lake City, Kolkata - 700 098
4. The Additional Principal Chief Conservator of Forests (C) Ministry of Environment Forest and Climate Change Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar – 751023 Email: roez[dot]bsr-mef[at]nic[dot]in
5. District Collector, Purulia District, West Bengal
6. Guard File / Record File/Monitoring file.


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