Government of India
Ministry of Environment and Forests
(I.A. Division)
Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003
E-mail: ms.industry-mef@nic.in
Tele/fax: 011 – 2436 3973
Dated: 29th March, 2011

To,
The President
M/s Brahmaputra Metallics Limited
401, Commercial Tower, Opp. Gel Church Complex,
Main Road, Ranchi– 334001, Jharkhand

Fax: 0651-2332161-63
E-mail: brahmaputra@group@gmail.com

Sub: Expansion of the Steel Plant (0.105 MTPA to 0.533 MTPA) at Village Kamta, Block Gola, District Ramgarh in Jharkhand by M/s Brahmaputra Metallics Limited - regarding environmental clearance

Sir,

This has reference to your letter no. nil dated 23rd June, 2010 along with copies of EIA/EMP and public hearing reports seeking environmental clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined your application. It is noted that M/s Brahmaputra Metallics Limited have proposed for expansion of existing Sponge Iron Plant of 0.105 MTPA and Captive Power Plant of 20 MW to 0.533 MTPA Steel plant and Captive Power Plant of 120 MW at Village Kamta, Block Gola, District Ramgarh, Jharkhand. Existing plant is located in an area of 50.0 Acres and the Company has already acquired total land area of 150 acres. Environment clearance for the existing plant was accorded vide letter F. No. J-11011/186/2007-IA-II (I) dated 10.11.2008. Green belt will be developed in 33% of the total project area. No National Park / Wild life sanctuary / Reserve Forest is located within 10 km radius of the project site. Total project cost is Rs. 2,100.0 Crores. Rs. 12.48 Crores and Rs. 1.42 Crores/annum will be earmarked towards capital cost and recurring cost for environmental pollution control measures.

3. Following are the details of existing and proposed plants:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Capacity</th>
<th>Product</th>
<th>Production (TPA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing unit with MOEF approval</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRI Kiln</td>
<td>1x350 TPD</td>
<td>Sponge Iron</td>
<td>105,000</td>
</tr>
<tr>
<td>WHRB PP</td>
<td>8 MW</td>
<td>Power</td>
<td></td>
</tr>
<tr>
<td>FBC PP</td>
<td>12 MW</td>
<td>Power</td>
<td>20 MW</td>
</tr>
<tr>
<td>SL</td>
<td>Units</td>
<td>Module</td>
<td>Capacity</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1.</td>
<td>Coke Oven Complex (Recovery type)</td>
<td>2 X 35 ovens, 4.5 m ht</td>
<td>4,13,800 TPA</td>
</tr>
<tr>
<td>2.</td>
<td>Sinter Plant</td>
<td>1 X 36 m²</td>
<td>3,83,200 TPA</td>
</tr>
<tr>
<td>3.</td>
<td>DRI Plants</td>
<td>3 X 350 TPD</td>
<td>3,15,000 TPA</td>
</tr>
<tr>
<td>4.</td>
<td>Mini Blast Furnace</td>
<td>1 X 380 m³</td>
<td>4,50,000 TPA</td>
</tr>
<tr>
<td>5.</td>
<td>Electrical Arc Furnace (EAF)</td>
<td>1 X 50 T with 1 X 50 T Ladle Furnace and Matching VD/VOD &amp; Billet Caster 1X3 + 1X2 Strand</td>
<td>3,50,000 TPA</td>
</tr>
<tr>
<td>6.</td>
<td>Induction furnace (IF)</td>
<td>4 X 15 T with 4 X 15 T LRF, AOD and CCM</td>
<td>3,07,300 TPA</td>
</tr>
<tr>
<td>7.</td>
<td>Bar Mill</td>
<td>Single continuous mill</td>
<td>3,00,000 TPA</td>
</tr>
<tr>
<td>8.</td>
<td>Lime &amp; Calcined Dolo Plant</td>
<td>2 X 100 TPD</td>
<td>51,200 TPA</td>
</tr>
<tr>
<td>9.</td>
<td>Oxygen Plant (BOD Basis)</td>
<td>1 X 250 TPD</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Ferro Alloy Plant</td>
<td>2X 12 MVA</td>
<td>43,000 TPA</td>
</tr>
<tr>
<td>11.</td>
<td>Captive Power Plant</td>
<td>• 2 x 20 MW (Based on WHRB/standby AFBC)</td>
<td>40 MW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 x 40 MW (Based on AFBC)</td>
<td>80 MW</td>
</tr>
</tbody>
</table>

4. Iron ore lumps & fines (96700 MTPA), coking coal (612600 MTPA), Non coking Coal (957400 MTPA), limestone (85600 MTPA), Dolomite (24100 MTPA), Mn Ore (36960 MTPA), Quartzite (27100 MTPA) and Furnace oil will be used as raw materials. Non coking coal will be sourced from CCL mines and coking coal will be sourced from BCCL mines. Recovery type coke oven will be installed. BF will be provided with coal dust injections system, gas-cleaning plant etc. Steel melt shop will produce liquid steel. The calcined plant will provide calcined lime to be used in Steel Melt shop as a flux. Oxygen plant will provide the oxygen gas for refining and other purposes in steel making.

5. Waste heat from flue gases of DRI klin, coke oven and surplus BF gas will be utilized. The exhaust gases from DRI klin will pass through dust settling chamber (DSC), after burning chamber (ABC) and then to Waste Heat Recovery Boiler (WHRB). Fume extraction unit with bag house will be provided to SMS. ESP will be provided to WHRB, FBC boiler and Sinter Plant. Dust catcher and bag filters will be provided to blast furnace. Fume extraction system will be provided to electric arc furnace (EAF), Induction furnace & ladle furnace (LF), billet casting unit. Fugitive dust will be controlled by water sprinkling and dust suppression measures in raw material handling area and transfer points. Fugitive dust emissions in work zone environment will be controlled by dust suppression and dust extraction system.

6. It is noted that make up water requirement after expansion has been estimated as 40,665 m3/day. The permission from CGWA was obtained vide letter no. 21-4(23)/MER.CGWA/2008-2049 dated 04.02.2008 for drawl of ground water.
The permission from Water Resources Department was obtained vide letter no. 2/PMC/ Jalaparty/08/2010/357 dated 05.05.2010 for drawl of 11.30 MCM/annum of surface water from the river Bhairivi. Balance 2,800 KLD of water requirement will be met from the rain water harvesting. Closed circuit recycling system will be adopted in the proposed plant. The waste water generated from the power plant will be used for ash quenching, sprinkling in the coal yard and dust suppression. Treated wastewater from SMS, CCM will be recycled for washings and dust suppression etc. The treated water will be recycled for plant use and horticulture application. Domestic effluent will be routed to a septic tank and soak pit and the treated effluent will be used for green belt development. No effluent will be discharged and zero discharge will be adopted. Total power requirement of 134 MW will be sourced from CPP and DVC. Furnace oil/coal will be used in rolling mill. Coal, coal fines and char will be used in FBC Plant. DG sets with acoustic measures as per norms will be installed.

7. Dolochar from DRI will be used in AFBC boiler as fuel mix. Slag from BF will be granulated and sold to cement manufacturers. Fly ash from Power plant will be sold to cement manufacturers. Bottom ash will be used for land filling. Dust from bag filters will be partly re-used in process or sinter plant. Dust from coke ovens will be reused in sinter plant. Sinter dust will be recycled to the sinter plant. Dust from air pollution control equipments will be recycled in the process. DRI kiln dust and kiln accretion will be used for land filling. Mill scrap will be recycled in the electric arc furnace/induction furnace.

8. The Integrated steel plants are listed at S. No. 3(a) under Category “A” of the Schedule of EIA Notification 2006 and appraised at the Central level.

9. The proposal was considered by the Expert Appraisal Committee-1 (Industry) in its 18th meeting held during 24th -25th January, 2010. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public hearing for the project was held on 11.02.2010.

10. Based on the information submitted by you, presentation made by you and consultant, M/s Eco Care, Asansol, West Bengal, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September 2006 subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITIONS:

i. Compliance to all the specific and general conditions stipulated for the existing plant by the Central/State Government shall be ensured and regular reports submitted to the Ministry's Regional Office at Bhubaneswar.

ii. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), gas cleaning plant, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology.
iii. Electrostatic precipitator (ESP) shall be provided to sponge iron plant, WHRB, CFBC, and dust catcher to blast furnace to control SPM levels within 50 mg/Nm². Fume extraction system shall be provided to induction furnaces to control the emissions within the prescribed standards.

iv. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed. Standards for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 shall be followed.

vi. The waste generated out of flue gases from the coke oven plant shall be used for WHRB power plant.

vii. Make up water requirement shall not exceed 40,965 K.L.D. Necessary permission from the concerned authorities shall be obtained for draw of water. The water consumption shall not exceed as per the standard prescribed for the steel plants. 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 shall be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and ‘zero’ discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.

viii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.

ix. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry’s Regional Office at Bhubaneswar, SPCB and CPCB.

x. The char from DRI plant shall be utilized in FBC boiler of power plant and no char shall be used for briquette making or disposed off anywhere else. FBC boiler shall be installed simultaneously along with the DRI plant to ensure full utilization of char from the beginning. All the blast furnace (BF) slag shall be provided to the cement manufacturers. Scrap shall be used in steel melting shop (SMS) and SMS slag and kiln accretions shall be properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.
xi. 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 and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.


xiii. Vehicular pollution due to transportation of raw material and finished products shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

xiv. 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.

xv. 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 should be submitted to the Ministry’s Regional Office at Bhubaneswar, SPCB and CPCB.

xvi. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

xvii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry’s Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.

xviii. As proposed, green belt shall be developed in 33% of plant area as per the CPCB guidelines in consultation with the DFO.

xix. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.

xx. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 11th February, 2010 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry’s Regional Office at Bhubaneswar.

xxi. At least 2% of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound
action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.

xxii. The company shall provide housing for 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 shall strictly adhere to the stipulations made by the Jharkhand Pollution Control Board (JPCB) and State Govt.

ii. At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.

iii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

iv. The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.

v. The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Authorization from the JPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.

vi. The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the A. P. Pollution Control Board must be obtained for collection / treatment / storage / disposal of hazardous wastes.

vii. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under
Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

viii. 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.

ix. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

x. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.

xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the environmental management and monitoring functions.

xii. As proposed, Rs. 12.48 crores and Rs. 1.42 crores/annum shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures and judiciously used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. A time bound implementation schedule shall be submitted to the Ministry and its Regional Office at Bhubaneswar to implement all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.

xiii. 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.

xiv. 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, the respective Zonal Office of CPCB and the PPCB. The criteria pollutant levels namely; RSPM (PM_{2.5} and PM_{10}), SO_{2}, 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.

xv. 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, the respective Zonal Office of CPCB and the JPCB. The Regional Office of this Ministry / CPCB / JPCB shall monitor the stipulated conditions.
xvi. 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 Offices of the MOEF by e-mail.

xvii. 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 JPCB and may also be seen at Website of the Ministry of Environment and Forests 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.

xviii. 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.

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

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


(Dr. P.L. Ahujarai)
Scientist -F
Copy to:

1. Secretary, Department of Forest, Govt. of Jharkhand, Nepal House, Ranchi.
3. Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar New Delhi – 110 032.
4. Chairman, Jharkhand State Pollution Control Board, T.A Division Building (Ground Floor) HEC Campus, Dhuswa, Ranchi -834004.
5. Director (Monitoring Cell), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.

(Dr. P. L. Ahujaral)
Scientist 'F'