F. No. J-11011/507/2009- IA II (I)

Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003

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Dated 23rd December, 2009

To,

M/s Radha Casting & Metaliks (P) Ltd.
Jaiswal Conoly, Jhanda Chowk
Ramgarh Cant, Hazaribagh – 829122
Jharkhand.

E-mail : radhacasting@rediffmail.com / sheryase@sancharnet.in ; Fax No. : 0653-221750 ;

Subject: Manufacture of Pig Iron (15,000 TPA), Ingots (15,000 TPA), Silico-Manganese (9,000 TPA) and Cement in Cement Grinding Unit (18,000 TPA) at Paiki, P.O. Marar, District Hazaribag, Jharkhand by M/s Radha Casting & Metaliks (P) Ltd. – Environment clearance reg.

Ref. : Your letter no. MoEF/EC/09 dated 28th August, 2009.

Sir,

This has reference to your letter no. MoEF/EC/09 dated 28th August, 2009 alongwith Form I, Pre-feasibility Report, draft Terms of References, EIA/EMP report and subsequent communication vide letter dated 10th November, 2009 for environmental clearance on the above mentioned project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that proposal is for the manufacture of Pig Iron (15,000 TPA), Ingots (15,000 TPA), Silico-Manganese (9,000 TPA) and Cement in Cement Grinding Unit (18,000 TPA) at Paiki, P.O. Marar, District Hazaribag, Jharkhand by M/s Radha Casting & Metaliks (P) Ltd. Total land acquired is 22 acres. No national park/wild life sanctuary/reserve forest is located within 10 km radius of the project site. Total cost of the plant is Rs. 17.00 Crores. Following are the details of the facilities and products from the proposed plant:

S.N.	Units	Production capacity	Products
1	Mini Blast Furnace	15,000 TPA	Pig iron
2	Induction furnace	15,000 TPA	MS Ingots
3	Submerged Arc Furnace	9,000 TPA	Silico-Manganese
4	Cement grinding unit	18,000 TPA	Portland slag cement
5	Re-Rolling mill	18,000 TPA	MS Bars / TMT bars

3.0 Pig iron will be produced in a mini blast furnace. Molten steel will be produced in a induction furnace and then casted into ingots. Submerged arc furnace technology will be adopted for manufacture of Silico-manganese. BF slag alongwith gypsum and clinker will be grinded in a raw mill grinding unit to produce cement. MS ingots after heating in reheating furnace will pass through roughing mill, intermediate mill and finished to produce the desired rolled product.

4.0 Pulse jet bag filters, gravity dust catcher with multi-cyclones, bag filters, dust suppression and fume extraction system will be provided to control air emissions. Ground water requirement will be 35 m^3/day. No process effluent will be discharged. BF Slag from pig iron plant will be utilized in cement grinding unit. SMS Slag and slag from ferro alloy plant will be used for road making and land development. Bag filter dust will be sold to sinter plants. End cuttings from re-rolling mill will be recycled in Induction furnace. Green belt will be developed in 7.25 acres, out of total plant area of 22 acres.

5.0 Public Hearing / Public Consultation meeting was held on 30th July, 2009.

6.0. 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) Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), gas cleaning plant, cyclone, multi-cyclone, wet scrubber, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3. No charcoal shall be used as raw material. At no time, the emission level shall go beyond the prescribed standards. Inter-locking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.

ii) Blast furnace top gas shall be passed through dust catcher and other cleaning equipment and the clean gas shall be used as fuel for preheating air for blast furnace. Pulse jet bag filters shall be provided to submerged arc furnace (ferro alloy plant). Fume extraction system shall be provided to induction furnace. Wet scrubber shall be provided to re-rolling mill. Bag filters shall be provided to cement grinding unit. Bag filter house shall be provided to control dust laden gas from steel melting shop (SMS) before discharging into the atmosphere. As proposed, gravity dust catcher with multi-cyclone shall be provided to re-rolling mill. Fumes from rolling mill shall be passed through a recuperator and finally discharged to the atmosphere through a stack of adequate height as per CPCB guidelines. All the gaseous emissions shall be within 100 mg/Nm^3.

iii) 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.

iv) 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. New standards issued by the Ministry for the sponge iron plant in May, 2008 shall be followed.

v) In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust suppression system with water sprinkling system shall be provided to control fugitive dust emissions from transfer points, conveyors, loading, raw material stock piling, sizing and stock preparation area etc. Dust extraction systems / foggy dust arresters shall be provided to control fugitive emissions from material transfer points and finished product handling section. The fugitive emissions shall be controlled, regularly monitored and records maintained.

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

vii) Total ground water requirement from bore wells shall not exceed 35 m^3/day. Closed cycle cooling system shall be provided to reduce fresh water consumption. All the treated effluent shall be recycled/reused in the process and/or for dust suppression, green belt development and various other purposes inside the plant. Domestic effluent shall be treated in septic tank followed by soak pit and used for green belt development.

viii) Prior 'Permission' for the drawl of 35 m^3/day ground water from the bore wells shall be obtained from the Central Ground Water Authority / State Ground Water Board (CGWA/ SGWB) and a copy submitted to the Ministry's Regional Office at Bhubaneswar.

ix) 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.

x) 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

xi) The water consumption should not exceed 16 m^3/Ton of Steel as per prescribed standard.

xii) 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 E(P) Act 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, Jharkhand Pollution Control Board (JPCB) and Central Pollution Control Board (CPCB).

xiii) All the bag filter dust shall be sold to sinter plants. End cuttings from re-rolling mill shall be recycled in induction furnace. All the blast furnace (BF) slag from pig iron plant shall be granulated and utilized in cement grinding unit. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner. Used or spent oil and oily waste shall be provided to authorized recyclers / reprocessors.

xiv) All the ferro alloy slag and SMS slag shall be used for for road making and land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Toxic slag shall be disposed in secured landfill as per CPCB guidelines. Otherwise, hazardous substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.

xv) Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture Silico Manganese (Si-Mn).

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

xvii) 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 at Bhubaneswar, Jharkhand SPCB and CPCB.

xviii) A Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, Jharkhand and CPCB within 3 months of issue of environment clearance letter.

xix) As proposed, green belt shall be developed in 7.25 acres (33 %), out of total 22 acres within and around the plant premises as per the CPCB guidelines in consultation with DFO.

xx) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel and Cement Plants shall be implemented.

xxi) All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 30th July, 2009 shall be satisfactorily implemented by allocating separate budget to implement the same.

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 must strictly adhere to the stipulations made by the Jharkhand Pollution Control Board (JPCB) 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 and Forests.

iii. 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. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.

iv. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO_2 and NO_x are anticipated in consultation with the Jharkhand SPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the Jharkhand PCB / CPCB once in six months.

v. 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 form time to time. The treated wastewater shall be utilized for plantation purpose.

vi. 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).

vii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

viii. The company shall develop surface as well as ground water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.

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

x. As proposed, Rs. 76.00 Crores and Rs. 7.00 Crores shall be earmarked towards total capital cost and recurring cost/annum for the environmental pollution control measures and judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.

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, the respective Zonal Office of CPCB and the JPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, NOx (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, the respective Zonal Office of CPCB and the JPCB. The Regional Office of this Ministry / CPCB / JPCB 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 alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF 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 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.

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.

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

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

10.0. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

11.0. 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 Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 alongwith their amendments and rules

(Dr. P. B. Rastogi)
Director

Copy to :

1. The Secretary, Department of Environment, Govt. of Jharkhand, Jharkhand.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi – 110 032.
3. Chairman, Jharkhand Pollution Control Board, Jharkhand, Town Administrative Building, H.E.C., Dhruwa, Raanchi - 824004, Jharkhand.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhuvaneswar - 751 023, Orissa.
5. Adviser (IA-II), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Monitoring Cell
8. Guard File.
9. Record File.

23/12/04

(Dr. P. B. Rastogi)
Director