

F. No. J-11011/842/2008- IA II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

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Dated: September 9<sup>th</sup>, 2010

To

The Vice President  
M/s Visa Steel Limited.  
Post – 8, Gajanam Puram,  
Kotra bypass, District Raigarh,  
Chhattisgarh.

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**Sub: Integrated Steel Plant (2.5 MTPA) with Captive Power Plant (559 MW) at Villages Patrapalli & Kotmar, District Raigarh, Chhattisgarh by M/s Visa Steel Limited-Reg. Environmental Clearance reg.**

Sir,

This has reference to your letter no. VSL/MoEF/01 dated 16<sup>th</sup> February, 2010 along with copies of final EIA /EMP and public hearing reports seeking environment clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the proposal. It is noted that M/s Visa Steel Ltd. have proposed for the Integrated Steel Plant (2.5 MTPA) alongwith Captive Power Plant (559 MW) at Village Patrapalli & Kotmar, District Raigarh, Chhattisgarh. Total project area is 400 ha of which 132 ha has been earmarked for green belt development. No forest land is involved. Out of 400 ha of land area, 285.767 ha is agriculture land, 4.416 ha is government land, 98.298 ha is revenue land, 6.402 ha is under ponds and 5.013 ha is village roads. The company has acquired 61.19 ha of land through CSIDC, 26.701 ha has been purchased, 213.706 ha is under acquisition by CSIDC and 98.29 ha of revenue land is under allocation. There will be 532 land oustees and some homestead oustees (10 huts, 34 people). No National park/wildlife sanctuary / eco-sensitive areas are located within 10 km distance of the plant. However, a number of reserve forests are located within 10 km radius. Total cost of the project is Rs. 9,349 Crores. Rs. 320 Crores and 35 Crores will be earmarked towards capital cost and recurring cost for environmental pollution control measures.

3. It is noted that following units will be installed:

S.N.	Name of the unit	Capacity
1	Blast Furnace (2x900 Cum)	1.764 MTPA molten metal
2	DRI Plant (8x500 TPD)	1.2 MTPA Sponge Iron
3	Iron ore beneficiation and Pellet Plant (2x1.2 MTPA)	2.4 MTPA Pellets
4	Coal washery (2x2.5 MTPA)	5.0 MTPA
5	Sinter Plant (2x120 SQM)	2.4 MTPA
6	Non-recovery coke oven	0.8 MTPA
7	Steel Melting shop (EAF Furnace-2x150 t, LRF-2x150 t, Concast-2x6 Strand Billet Caster)	2.5MTPA
8	Rolling Mill (Bar & Wire Rod Mill - 1.25 MTPA, Section Mill - 1.25 MTPA)	2.5 MTPA
9	Captive Power Plant (WHRB-2x77 MW = 154 MW CFBC 3x135 MW =405 MW)	559 MW
10	Oxygen Plant (2x 500 TPD)	1000 TPD

Proposed product mix will be as follows:

S.No.	Product		Total
1.	Bar & wire Rod Mill product		
	MS Billets		
	TMT Bar 5 mm-63 mm	4,00,000 t	
	Plain Round Bars	3,00,000 t	
	RCS 40-63 mm	3,00,000 t	
	Angles 50-100	2,50,000 t	
	Total	12,50,000	12,50,000
2	Section Mill Products	2,00,000 t	
	Heavy Beams > 350 to 600	2,00,000 t	

4. It is further noted that Iron ore from Orissa by rail, dolomite from Bilaspur through road, limestone from Raigarh through road and coal will be used as raw materials. DR and MBF technology will be used. 16 Nos. of non-recovery type coke oven batteries will be installed to meet the requirement of Met Coke. ESP, bag filters will be provided to control particulate emission within 50 mg/Nm<sup>3</sup>. A de-sulphurization plant will be installed for removal of sulphur from hot metal. BF gas will be used in sinter plant after cleaning in gas cleaning plant (GCP). Fugitive dust emission will be controlled using water sprinkling systems, closed conveyors, bag filters etc. Hot waste gases from DRI kiln will pass through DSC and ABC and then cleaned in ESP before letting out into atmosphere through ID fan and stack. Bag filter and tall chimney will be provided to coke oven plant. ESP will be provided to sinter plant, pellet plant, DRI Plant, bag filters, GCP, cast house and stock house will be provided to Blast Furnace plant. Bag filter, gas cooler, chimney will be provided to SMS. WHRB will be installed to use the waste heat from DRI plant and coke oven plant. CFBC boilers will be installed by using coal fines, washery middling's and DRI chalk as fuel.

5. Water requirement of 1003m<sup>3</sup>/hr will be met from the River Sapnai. Effluent treatment plant (ETP) will be installed for the treatment of wastewater. Sewage will be treated in STP. No treated effluent will be discharged. Treated liquid effluent will be recycled / reused. Char and washery rejects will be utilized in AFBC power plants. Slag will be sold to crusher units and cement manufacturers. Other solid waste will be dumped in dump yard till any final use is found. The fly ash will be sold to the cement plants. Bottom ash will be used for land filling and road making. BF slag will be sold as by product. Flue dust from different plants will be used in sinter plant. Spent oil and lubricants will be given to authorized recyclers. Green belt will be developed in 33% area. CPP (550 MW) will be installed. 154 MW power will be generated using WHRB; 405 MW power will be generated using CFBC boiler where char and washery rejects will be used as fuel.

6. All the Integrated Steel Plants are listed at Sl. No. 3 (a) under Primary Metallurgical Industries under of EIA Notification, 2006 and appraised at Central level.

7. The proposal was considered by the Expert Appraisal Committee-1 (industry) in its meeting held during 24-26<sup>th</sup> June, 2010. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public hearing of the project was held on 10<sup>th</sup> October, 2009.

8. Based on the information submitted by you, presentation made by you and consultant, EMTRC Consultants Pvt. Ltd., Delhi & Envirotechno Consultants Pvt. Ltd., Bhilai, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006 subject to strict compliance of the following Specific and General conditions:

**A. SPECIFIC CONDITIONS :**

1. Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), gas cleaning plant, cyclone, multi-cyclone, wet scrubber, bag filters etc. should be provided to keep the emission levels below 50 mg/Nm<sup>3</sup> by installing energy efficient technology.
2. As proposed, Electrostatic precipitator (ESP) shall be provided to pallet plant, blast furnace, sinter plant, WHRB, CFBC and DRI plants; bag house to blast furnace and ESP & refractory wall and air tight seals to coke oven plant to control SPM levels within 50 mg/Nm<sup>3</sup>. Fume extraction system with bag filters should be provided to electric arc furnace and ladle furnace.
3. All the standards prescribed for the coke oven plants shall be followed as per the latest guidelines. Naphthalene scrubbing unit shall be provided to remove residual naphthalene from coke oven gas. Ammonia released in de-sulphurization section of coke oven plant shall be catalytically cracked to Nitrogen and Hydrogen. BF top gas shall be cleaned in dust catcher and gas cleaning plant (GCP) comprising of bag filters and used in furnace of CSP, BF, sinter plant, lime & dolo plant. Bag filters with adequate stack height shall be provided to lime and dolo plant. Proper and full utilization of coke oven gases in power plant using heat recovery steam generators should be ensured and no flue gases shall be discharged into the air.
4. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be followed.

5. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB should be followed. New standards for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 shall be followed.
6. Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in waste heat recovery boiler (WHRB). The gas then should be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.
7. Vehicular pollution due to transportation of raw material and finished product should be controlled. Proper arrangements should also be made to control dust emissions during loading and unloading of the raw material and finished product.
8. Total water requirement from River Sapnai shall not exceed 1003m<sup>3</sup>/hr. Efforts shall further be made to use maximum water from the rain water harvesting sources. As proposed, modified wet quenching system should be provided to coke oven plant. Air cooled condensers and closed circuit cooling system should 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 should be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.
9. Effluent treatment plant (ETP) shall be provided for the treatment of Phenolic effluent from coke oven plant and the treated water should be used for sprinkling at coal stockyard. Clarifier, sludge pond and filter press should be provided in raw water treatment plant. DM plant water should be neutralized in neutralization pit and the treated water should be used for ash handling. Process wastewater should be recycled / reused in the plant. Cooling tower blow down should be reused in the plant for dust suppression and slag granulation, pig casting machine etc. Provision of separate drains for the process and storm water shall be kept.
10. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.
11. Measures shall be taken to prevent impact of particulate emissions / fugitive emissions, if any from the proposed plant on the surrounding reserve forests located within 10 km radius of the project site. Further, Conservation Plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared and implemented. A separate fund shall be earmarked in this regard.
12. Regular monitoring of influent and effluent surface, sub-surface and ground water should 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 Bhopal, CECB and CPCB.
13. All the wastewater from the coke oven plant containing cyanide, phenol and COD etc. shall be properly treated in the BOD plant. Continuous monitoring of Total Organic Compounds (TOC) should be done at the outlet of ETP (BOD plant) and recovery of products like tar, ammonia, naphthalene etc. should be ensured.

14. The water consumption shall not exceed 16 m<sup>3</sup>/Ton of Steel as per prescribed standard.
15. Iron ore fines, process dust, and mill scales shall be recycled to sinter plant to produce sinter. Sludge and slag from electric arc furnace (EAF) should also be recycled in the sinter plant.
16. All the coal fines, char from DRI plant and washery rejects should be utilized in AFBC boiler of power plant and no char should be used for briquette making or disposed off anywhere else. AFBC boiler should 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 granulated and used in manufacturing Portland Slag Cement (PSC) in the proposed cement plant. Scrap should be used in steel melting shop (SMS). All the other solid waste including broken refractory mass should be properly disposed off in environment-friendly manner. Tar sludge from coke oven decanter, waste oil and oil sludge shall be properly disposed as per Hazardous Waste (Management, Handling and Transboundary Movement ) Rules, 2008 as subsequently amended.
17. All the slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Toxic slag should be disposed in secured landfill as per CPCB guidelines. Otherwise, hazardous substances should be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.
18. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003. All the fly ash generated shall be fully utilized in manufacturing of Pozollona Portland Cement (PPC) and BF slag in shall be ensured.
19. 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 Bhopal, CECB and CPCB.
20. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
21. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhopal, CECB within 3 months of issue of environment clearance letter.
22. As proposed, green belt shall be developed in 33 % of the plant area as per the CPCB guidelines in consultation with the DFO.
23. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented.
24. At least 5 % 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 shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

25. Rehabilitation and Resettlement Plan for the project affected population including tribals shall be implemented as per the policy of the State Govt. in consultation with the State Govt. of Chhattisgarh. Compensation paid in any case should not be less than the norms prescribed under the National Resettlement and Rehabilitation Policy, 2007.

**B. GENERAL CONDITIONS:**

- i. The project authority shall adhere to the stipulations made by Chhattisgarh Environment Conservation Board (CECB) and State Government.
- ii. No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.
- iii. The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19<sup>th</sup> May, 1993 and standards prescribed from time to time. The CECB 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. 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 Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- v. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vi. All the environment management measures given in the EIA/EMP shall be implemented and complied with.
- 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. Proper house keeping and adequate occupational health programmes shall be taken up as per the Factory Act.
- ix. The company shall undertake eco-development measures including community welfare measures in the project area.
- x. A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
- xi. The requisite funds shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures and used judiciously 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.
- xii. The 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.


- 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 SPCB.
- The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (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 respective Regional Office of MOEF, the respective Zonal Office of CPCB and the CWCB. The Regional Office of this Ministry at Bhopal/CPCB/CECB shall monitor the stipulated conditions.
- xvi. The environmental statement for each financial year ending 31<sup>st</sup> 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.
- 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 CECB and may also be seen at the Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This should 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 shall be forwarded to the Regional office at Bhopal.
9. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11. 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.

12. 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, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

  
(Dr. P.L. Ahujara)  
Scientist-F

**Copy to:**

1. The Secretary, Department of Environment, Govt. of Chhattisgarh, Chhattisgarh.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
4. The Chief Conservator of Forests (Eastern), Regional Office (Western Zone), E-3/240, Arera Colony, Bhopal - 462 016, M.P.
5. Adviser (IA-II), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard file.
8. Record file.

  
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