

F. No. J-11011/959/2008- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
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New Delhi – 110 003

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Dated 10th June, 2009

To,

✓
The Managing Director
M/s Sunvik Steels Pvt Ltd
C-1304, 13th Floor, Platinum City
Yeshwanthpur, Bangalore- 560022
Karnataka

E-mail : vsl@airtelmail.in ; Fax No. : 080-4117 2663 ;

Subject: Expansion of Sponge Iron Plant (60,000 TPA to 90,000 TPA) alongwith Captive Power Plant (10 MW), Induction Furnace (12 MT) and Rolling Mill (12 MT) at Sy. No. 59/72, Village Jodidevarahalli, Kallambella, Taluk Sira, District Tumkur, Karnataka by M/s Sunvik Steels Pvt. Ltd. – Environment clearance reg.

Ref. : Your letter no. nil dated 1st December, 2008.

Sir,

This has reference to your letter no. nil dated 1st December, 2008 alongwith Form-I, draft 'Terms of Reference' and Pre-feasibility Report, 'Terms of References' and related project documents and subsequent letters dated 9th February, 2009 and 9th March, 2009 for seeking environmental clearance under the EIA Notification, 2006 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 expansion of Sponge Iron Plant (60,000 TPA to 90,000 TPA) alongwith Captive Power Plant (10 MW), Induction Furnace (12 MT) and Rolling Mill (12 MT) at Sy. No. 59/72, Village Jodidevarahalli, Kallambella, Taluk Sira, District Tumkur, Karnataka by M/s Sunvik Steels Pvt. Ltd. Proposed expansion will be carried out within already acquired 49.5 acres land. No additional land will be acquired for the expansion. No national Park/wild life sanctuary/reserve forest is located within 10 km radius of the project site. Ankasandra State Forest (9 km) and Badavanahalli State Forest (4.9 km) are located within 10 km radius of the project site. Total cost of the proposed expansion is Rs. 68.58 Crores. Following are the details of existing and proposed facilities:

S.N.	Facility	Existing	Proposed	Total
1	Sponge Iron Plant	60,000 TPA (2x100 TPD)	30,000 TPA (1x100 TPD)	90,000 TPA
2	SMS (IF)		36,000 MTPA (12 TPH)	36,000 MTPA
3	Captive Power Plant WHRB FBC Boiler	-	10 MW 3x 11TPH 1x35 TPH	10 MW
4	Rolling Mill	100 MTPD	100 MTPD	100 MTPD

3.0 Crushed Iron ore and coal alongwith limestone will be fed to the rotary kiln to produce sponge Iron and char. Steel scrap and sponge iron will be charged into induction furnace to produce molten metal and poured into the preheated ladle. The liquid metal is poured from ladle into moulds. Ingots will be rolled in rolling mill for further processing. Waste heat from DRI kilns will be utilized to generate power using WHRB. Coal char and coal fines will be used in AFBC boiler for power generation.

4.0 Electrostatic precipitator (ESP) will be provided to the waste heat recovery boiler (WHRB) attached to DRI kiln and fluidized bed combustion (FBC) boiler of power plant to control particulate matter within 100 mg/Nm^3 . Ventury scrubber to induction furnace and chimney with bag filters will be provided to rolling mill. Fugitive dust emissions will be controlled by water sprinkling. Total ground water requirement will be $642 \text{ m}^3/\text{day}$. No effluent will be discharged outside the premises. Mill scales will be reused in SMS. Coal char from DRI plant will be used in AFBC based power plant. Ash, sludge and dust from bag filters will be used for brick / cement manufacturing. Accretion slag and SMS slag will be used for road construction after removal of iron contents and ensuring non-hazardous in nature through TCLP test.

5.0 Public hearing / consultation is exempted as per Section 7 (ii) of EIA Notification, 2006.

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. ESP and bag filters etc. shall be provided to keep the emission levels below 100 mg/Nm^3 . 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.
- ii) Electrostatic precipitator (ESP) shall be provided to the waste heat recovery boiler (WHRB) attached to DRI kiln & fluidized bed combustion (FBC) boiler of power plant to bring down the particulate matter to less than 100 mg/Nm^3 and discharged through ID fan and stack. 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 shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack. Ventury scrubber followed by a stack shall be provided to Induction Furnace. Stack with bag filters shall be provided to rolling mill. All the stacks shall have adequate height as per CPCB guidelines.
- iii) Data on ambient air quality, stack emissions and fugitive emissions shall be uploaded on the Company's website and also regularly submitted on-line to the Ministry's Regional Office at Bangalore, Karnataka Pollution Control Board (KPCB) and Central Pollution Control Board (CPCB) as well as hard copy once in six months. Data on SPM, SO_2 and NO_x shall also be displayed prominently outside the premises at the appropriate place for the information of general public.

- 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. Fugitive emissions shall be regularly monitored and records maintained.
- v) Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements should also be made to control dust emissions during loading and unloading of the raw material and finished product. All the raw materials including fly ash shall be transported in the closed containers only and shall not be overloaded. Vehicular emissions shall be regularly monitored and records kept.
- vi) In-plant control measures like tarring of roads, green belt and good house keeping shall be done to control fugitive emissions from all the vulnerable sources. Fume extraction system with bag filters shall be provided to control fugitive emissions from steel melting shop (SMS) and treated gases shall be let out into the atmosphere through a stack. Dust suppression system shall be provided in unloading areas. All the material transfer points, discharge points, raw material storage and conveyors area shall be completely covered. All the internal roads shall be asphalted to control fugitive dust emissions. Water spraying shall be done to prevent the dust emissions due to vehicular movement. Monitoring of fugitive emissions in the work zone environment shall be carried out regularly as per the CPCB guidelines and reports submitted to the Ministry's Regional Office at Bangalore, KPCB / CPCB.
- vii) Total ground water requirement from bore wells shall not exceed 642 m³/day. Closed circuit cooling system shall be adopted to reduce water consumption. The effluent from power plant such as boiler blow down, DM plant regeneration wastewater shall be neutralized in a neutralization tank and treated effluent shall be used for ash conditioning, dust suppression, green belt development and other plant related activities within the plant premises. Domestic wastewater shall be treated in septic tank followed by soak pit and used for green belt development.
- viii) Prior 'Permission' for the drawl of 642 m³/day ground water from the CGWA / SGWB shall be obtained.
- ix) 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.
- x) All the char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be disposed off anywhere else. AFBC boiler shall be installed simultaneously alongwith the DRI plant to ensure full utilization of char from the beginning. Slag from steel melting shop (SMS) shall be properly utilized. Mill scales shall be reused in SMS. Iron contents from slag from electric arc furnace (EAF) shall be separated by magnetic separator and only non-magnetic shall be used for road construction. Wet scrapper sludge shall be given to brick manufacturers. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.
- xi) All the accretion and SMS slag shall be used for road construction / 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.

- xii) Proper house keeping shall be ensured and all the raw material including scrap, coal etc. shall be stored at designated places.
- xiii) 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, SPCB and CPCB.
- xiv) A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- xv) Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003. All the fly ash, wet scrubber sludge and bag filter dust shall be provided to cement and brick manufacturers for further utilization.
- xvi) As proposed, green belt shall be developed in 17 acres (35 %) out of total 49.5 acres in and all around the plant boundary and wherever space is available to mitigate the effects of air emissions as per CPCB guidelines in consultation with local DFO.
- xvii) Prior permission from the State Forest Department shall be taken regarding likely impact of the expansion of the proposed steel plant on the reserve forests viz. Ankasandra State Forest (9 km) and Badavanahalli State Forest (4.9 km) located within 10 km radius of the project site. Measures shall be taken to prevent impact of particulate emissions/fugitive emissions, if any, on the surrounding reserve forests. Further, Conservation Plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared and implemented.
- xviii) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel plants shall be implemented.
- xix) 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 Karnataka Pollution Control Board (KPCB) 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. On-line continuous monitoring system shall be installed in stacks to monitor SPM and 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, SO₂ and NO_x are anticipated in consultation with the KPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore / KPCB and CPCB once in six months.
- v. Industrial wastewater shall be properly collected and 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.
- 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 shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vii. The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. All the measures regarding occupational health surveillance of the workers shall be undertaken and regular medical examination of all the employees shall be ensured as per the Factories Act and records maintained.
- ix. 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 programs, educational programs, drinking water supply and health care etc.
- x. As proposed, Rs. 6.00 Crores and Rs. 1.50 Crores shall be earmarked towards capital cost and recurring expenditure/annum for environment pollution control measures and shall be used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for all the conditions stipulated herein shall be submitted to the Regional Office of this Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.
- xi. The Regional Office of this Ministry at Bangalore / CPCB / KPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
- xii. 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 KPCB 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 at Bangalore.
- xiii. 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.

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

8.0. 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.

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.

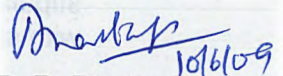
10.0. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.



(Dr. P. B. Rastogi)
Director

Copy to :

1. The Secretary, Department of Environment & Forests, Government of Karnataka, Bangalore, Karnataka.
2. The Chairman, Karnataka State Pollution Control Board, Parisar Bhavan, No. 49, 4th & 5th Floor, Church Street, Bangalore – 560 001, Karnataka.
3. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -110032.
4. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IVth Floor, E&F Wing, 17th Main Road, Koramangala, Bangalore-560034, Karnataka.
5. Adviser, IA-II, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi- 110003.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi- 110003.
7. Guard file.
8. Monitoring file.
9. Record file.



(Dr. P. B. Rastogi)
Director