

F. No. J-11011/116/2011-IA-II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated: 10th October, 2012

To,
The Director,
M/s MSP Sponge Iron Limited
16/S, Block-A, New Alipore
Kolkata - 700053

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Sub: Expansion of existing Mini Steel Plant (0.5 MTPA) into Integrated Steel Plant (0.264 MTPA) along with 20 MW Captive Power Plant (8 MW WHRB and 12 MW CFBC) at Village Haldiaguna, District Keonjhar in Odisha by M/s MSP Sponge Iron Limited -regarding Environmental Clearance

Sir,

This has reference to your letter dated 01.05.2012 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 M/s MSP Sponge Iron Limited (MSPSIL) have proposed for expansion of its existing mini steel plant to integrated steel plant along with 20MW Captive Power Plant (CPP) at Village – Haldiaguna, Keonjhar District, Odisha. Total project area including existing plant is 160.93 acres and green belt will be developed in 53.0 acres of plant area. Forest is located at 3.0 Km (NE). No national park/wild life sanctuary/reserve forest is located within 10 Km. Total cost of the project is Rs. 623.41Crores. Rs. 34.28 Crore and Rs.6.856 Crore are earmarked towards capital cost and recurring cost per annum against pollution control measures. A budget of Rs. Rs.31.5 Crore has been envisaged for CSR.

3. The configuration of the existing and proposed expansion along with production capacities is as follows:

SL	Unit	Existing Capacity (TPA)	Proposed Expansion		Total Capacity in (TPA)
			PH- I in TPA	PH-II In TPA	
1.	Coal Beneficiation Plant	-----	-----	6,00,000 (throughput) (2 x 75 TPH)	6,00,000 (throughput)
2.	Coal Gasification	1x864 M ³ /hr.	4x2,850 M ³ /hr. each	4x2,850 M ³ /hr. each	23,664 M ³ /hr

	Plant				
3.	Iron ore Beneficiation Plant	-----	10,00,000 (throughput) (concentrate – 8,50,000)	-----	10,00,000 (throughput) (concentrate – 8,50,000)
4.	Iron Ore Pellet Plant	-----	6,00,000	6,00,000	12,00,000
5.	DRI Plant	54,000 (2x50 TPD 2x40 TPD)	-----	1,05,000 (1x350 TPD)	1,59,000
6.	Sinter Plant	-----	-----	4,16,000 (1x36M ²)	4,16,000
7.	Mini Blast Furnace	-----	----	2,00,000 (1x250M ³ with 30 TPH pig casting machine)	2,00,000
8.	SMS & Continuous Casting	50,400 (3 x 5T/heat I/F)	-----	2,13,600 (4 x 15 T/heat with two number of billet caster.)	2,64,000
9.	Rolling Mill	42,000	---	---	42,000
10.	Captive Power Plant	-----	-----	12 MW (CFBC) & 8 MW (WHRB)	20 MW

4. It is noted that Iron ore fines from Joda-Barbil, Limestone/Dolomite from Sundergarh, Coal from Talcher Coal Field of M/s. MCL and from SECL, Coke from China/Australia, Bentonite from open market, Quartzite from Bhutan/West will be the major raw materials used in the plant process. The coal middling and char from the DRI Plant will be used for the 12 MW CFBC boiler. The estimated power requirement for the plant is 34 MW out of which 20 MW will be generated from captive power plant and balance 14 MW will be drawn from NESCO. D.G. set (1x200 KVA) will be installed for emergency use.

5. Pulse jet type bag filters would be installed to control the fugitive emissions at raw material crushing and screening, cooler discharge and day bin building, product separation area, raw material handling area to control the fugitive emissions. Dust suppression will be done by water sprinkling to control fugitive emissions due to transportation activities. Fume extraction system with bag filters will be provided to DRI plant. MBF will be equipped with bag filter. Spark arrester and bag filter will be provided to SMS plant. Air pollution from CPP will be controlled by ESP and ash conditioning & moistening system. ESP will be installed at the sinter plant to control the particulate emissions. Water sprinkling will be done along the haul roads to control the dust arising from vehicular movement. Transportation of material will be through cover truck and wagons.

6. Total water requirement of 7,920 m³/day, will be met from ground water and Ardei river at a distance of 1.5 Km and rain water harvesting. Permission for ground water drawl for 3600 m³/d of water has been obtained from CGWA, New Delhi vide letter No. 21-4(96)/SER/CGWA/ 2009-27, dated 25.06.2009. Permission for drawl of 4320 m³/d of river water will be obtained from the State Water Resources Department. No liquid effluent will be generated and discharged due to adoption of closed loop system. Only make up water will

be fed into the plant. The treated effluent will be used for ash conditioning, dust suppression and green belt development. Service water will be passed through oil separator to remove oil content in the effluent. Domestic effluent will be treated in septic tank followed by soak pit. No effluent will be discharged outside the premises and zero discharge will be adopted.

7. Solid waste i.e. char generated from DRI plant will be reused in the CFBC boiler and dust form APCD will be partly used for fly ash brick making and balance will be taken to designated dump area. Kiln accretion waste will be partly processed through iron ore beneficiation plant & remaining part will be disposed in solid waste dump area. Granulated Slag from MBF will be given to cement manufacturing unit. Dust form APCD will be used in sinter plant. SMS slag will be used for road construction & low land filling and Dust form APCD will be disposed in solid waste dump yard. Dust form APCD of sinter plant and pellet plant will be re-used in sinter plant. Fly ash from power plant will be used for cement making, fly ash brick making, road construction, concrete batching plant and balance will be taken to ash mound for which 8 acres land is earmarked. Bottom ash will be disposed in ash disposal area. Middlings from Coal Beneficiation Plant will be used in CFBC boiler of CPP and remaining amount will be sold. Rejects from Coal Beneficiation Plant will be given to brick manufacturing units, coal briquetting unit and used in power plant. Tailings from iron ore beneficiation will be kept in tailing pond of area 14 acres. Waste/used/spent oil and used batteries will be sold to authorized recyclers /re-processors.

8. The steel plants are listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry-1) of MoEF.

9. The proposal was considered by the Expert Appraisal Committee-1 (Industry) in its 37th meeting held during 14th - 15th June, 2012. 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 23.03.2012.

10. Based on the information provided by you and your consultant, M/s Visiontek Consultants, Bhubaneswar, the Committee recommended the project for environmental clearance subject to the following specific conditions along with other environmental conditions:

A. SPECIFIC CONDITIONS

- i. Measures shall be undertaken to mitigate particulate levels in the ambient air. 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, venturi scrubber, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology.
- ii. As proposed, Electrostatic precipitator (ESP) shall be provided to sinter plant, WHRB, CFBC, DRI plants and dust catcher followed by venturi scrubbers to blast furnace to control PM levels within 50 mg/Nm³. Fume extraction system shall be provided to induction furnaces to control the emissions within the prescribed standards.
- iii. The National Ambient Air Quality 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 for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 should be followed.

- v. 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.
- vi. Total water requirement shall not exceed 7,920 m³/d. 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. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.
- vii. 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 shall be met from other sources.
- viii. Regular monitoring of influent and effluent surface, sub-surface and ground water (including chromite) should be ensured and treated wastewater should 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, SPCB and CPCB.
- ix. The water consumption shall not exceed as per the standard prescribed for the steel plants.
- x. All the coal fines, char from DRI plant shall be utilized in CFBC boiler of power plant and no char shall be used for briquette making or disposed off anywhere else. CFBC 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. Tailings from beneficiation plant and sponge iron kiln accretion can be mixed and made into bricks etc.
- xii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009.
- 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. Transportation of raw coal during the initial phase shall be by 40-T mechanically covered or tarpaulin covered trucks from the coalmines to the washery. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site(s) within sheds/stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored minerals do not catch fire.

- xv. Hoppers of the coal crushing unit at the crushing shed and washery unit shall be fitted with high efficiency bag filters/Dust extractors and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of belt conveyor systems which shall be closed and from transportation roads.
- xvi. 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.
- xvii. The washery unit shall be a zero-discharge facility and no wastewater shall be discharged from the washery into the drains/natural watercourses. Recycled water shall be used for development and maintenance of green belt and in dust suppression from Plant operations.
- xviii. The tailing pond/slime pond shall be lined with impervious lining.
- xix. The ground water quality around the tailing pond/slime pond shall be monitored regularly and records maintained.
- xx. The garland drain shall be constructed around the tailing/slime pond.
- xxi. The decanted water from the tailing/ slime pond shall be re-circulated and there should be zero discharge from the slime/tailing pond.
- xxii. The groundwater quality around the tailing/slime pond shall be monitored regularly. The monitoring network shall be designed in consultation with State Ground Water Board/Central Ground Water Authority. There shall be at least one monitoring station between the tailing/slime pond and the river
- xxiii. 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.
- xxiv. 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.
- xxv. As proposed, green belt shall be developed in 33 % of plant area as per the CPCB guidelines in consultation with the DFO.
- xxvi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.
- xxvii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 23rd March, 2012 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.
- xxviii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on Public Hearing issues 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.

- xxix. Rehabilitation and Resettlement Plan for the project affected population including tribals, if any shall be implemented as per the policy of the State Govt. in consultation with the State Govt. of Odisha⁴. Compensation paid in any case should not be less than the norms prescribed under the National Resettlement and Rehabilitation Policy, 2007.
- xxx. 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.
- xxxi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Orissa State 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 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 Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.
- 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 PM₁₀, 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 Bhubaneswar and the SPCB/CPCB once in six months.
- v. 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 (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- 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. 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 and Forests 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 Bhubaneswar. 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 at Bhubaneswar. 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, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar / 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 alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF 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 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 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.

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.

13. 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, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

(A N Singh)
Dy. Director (S)

Copy to:-

1. The Secretary, State Department of Environment, Government of Orissa, Bhubaneswar, Orissa.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.
3. The Chairman, Orissa Pollution Control Board, Parivesh Bhavan, A/118, Neelkanthhanagar, Unit-8, Bhubaneswar - 751 012, Orissa.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar - 751 023, Orissa.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File / Record File.

(A N Singh)
Dy. Director (S)