

F. No. J-11011/1058/2007- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated 22nd December, 2008

To, ✓
M/s Corporate Ispat Alloys Ltd.
Siltara Growth Centre, Siltara
Raipur, Chhattisgarh

E-mail : sikri@neco.com ; Fax No. 0771-5093320

Subject: Expansion of Integrated Steel Plant at Siltara Growth Centre, Siltara, Raipur, Chhattisgarh by M/s Corporate Ispat Alloys Ltd. – Environmental clearance reg.
Ref. : Your letter no. CIAL-SD/ENO/2007/2206 dated 16th June, 2007.

Sir,

This has reference to your letter no. CAIL-SD/ENV/2008 dated 16th June 2008 along with Form I, Pre-feasibility Report, EIA/EMP and related project documents and subsequent clarifications furnished by you vide your letters dated 20th December, 2007 and 26th June, 2008 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 expansion of Integrated Steel Plant at Siltara Growth Centre, Siltara, Raipur, Chhattisgarh by M/s Corporate Ispat Alloys Ltd.. Total project area is 176 acres and expansion will be carried out on the additional 150 acres land situated adjacent to the existing plant boundary. No National Park & Wildlife Sanctuary is located within 10 km. radius of the project site. Total cost of the project is Rs. 2,060.00 Crores. Following will be the details of existing and proposed facilities:

Name of Unit	Existing Units	Expansion units	Total Capacity
Blast Furnace	--	0.8 MTPA	0.8 MTPA
Sinter plant	--	1.20 MTPA	1.20 MTPA
Coke Oven (Non-recovery type)	--	0.3	0.3
Oxygen plant	100 TPD	200 TPD	300 TPD
DRI Plant	0.15 MTPA	-	0.15 MTPA
Steel Melting Shop	0.40 TPA	0.80 MTPA	1.2 MTPA
Rolling Mill	0.30 MTPA	0.90 MTPA	0.90 MTPA
Captive Power Plant	15 MW DRI gas-12 MW AFBC- 3 MW	42 MW BF gas-24 MW CO gas-18 MW	57 MW

3.0 Electrostatic precipitator (ESP) will be provided to FBC based power plant, DRI kiln, coke oven and sinter plant to control particulate matter to 100 mg/Nm^3 . Fume extraction system with bag filters to SMS, dust extraction (DE) system, gas cleaning system and sludge disposal system to blast furnace (BF) stock house and dust suppression (DS) system to raw material handling area will be provided. Adequate stack height will be provided to rolling mill and other plants. DE & DS system alongwith dust collectors will be provided to coke oven plant. Total water requirement from Kharoon River will be $380.50 \text{ m}^3/\text{h}$. ETP will be installed for the treatment of process effluent and treated water will be reused for gardening purpose or for slag granulation. Cooling tower blow down from blast furnace, sinter plant, SMS, rolling mill, DRI and CPP will be recycled and reused. 'Zero' discharge will be adopted. Char will be used in AFBC boiler. BF slag and fly ash will be used for cement making. Iron ore fines, mill scales from rolling mill, scrap, BF dust/sludge, coke breeze from coke oven plant, flue dust from SMS, DRI and sinter plant will be used in sinter plant in making sinter, which will be used in BF. SMS slag will be given for metal recovery and also used in road making.

3.0 No public hearing/consultation is required due to location of the project in notified Siltara Industrial Area as per Section (iii), Stage (3), Para (i)(b) of EIA Notification 2006.

4.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 as amended subsequently subject to strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS :

- i) No coal based sponge iron plant and captive power plant shall be installed without prior permission from the State Govt. of Chhattisgarh (banned as per the order of the Govt. of Chhattisgarh dated 16th March, 2007) and Ministry.
- ii) 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 and sufficient air pollution control devices 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. Data on ambient air quality, stack emissions and fugitive emissions shall be regularly submitted to this Ministry including its Regional Office at Bhopal and the CECB/CPCB once in six months.
- iii) All the standards prescribed for the coke oven plants shall be followed as per the latest guidelines. Proper and full utilization of coke oven gases in power plant using waste heat recovery steam generators shall be ensured and no flue gases shall be discharged into the air.
- iv) Gaseous emission levels including secondary fugitive emissions from blast furnace and sinter plant 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. The emission standards issued by the Ministry in May, 2008 for the sponge plants shall be followed.

- v) 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. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. 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) Electrostatic precipitator (ESP) shall be provided to AFBC boilers, DRI kiln, coke oven and sinter plant to control air emissions below 100 mg/Nm^3 . Gas cleaning plant having dust catcher and pulse jet bag filters shall be provided to blast furnace (BF). Stacks of adequate height as per CPCB guidelines shall be provided to control emissions from the blast furnace (BF), Sinter Plant, Coke Oven, Steel melting shop (SMS), Rolling mill etc.
- vii) Fume extraction system with bag filters shall be provided to Steel melting shop to control fugitive emissions. Dust extraction (DE) system to blast furnace (BF) stock house, gas cleaning plant and sludge disposal system shall be provided to BF. Dust suppression (DS) system to raw material handling area shall be provided. Adequate stack height will be provided to rolling mill and other plants. DE & DS system alongwith dust collectors shall be provided to coke oven plant. Water quenching shall also be done. Fugitive emissions shall be regularly monitored and records maintained.
- viii) Total requirement of the water from Kharoon River shall not exceed $380.50 \text{ m}^3/\text{h}$. Rolling mill overflow shall be taken to settling tank for removal of scales. All the wastewater shall be treated in effluent treatment plant (ETP) and treated wastewater including cooling tower blow down shall be used for dust suppression, sinter nodulizing, slag quenching, ash handling, green belt development and various other project related activities. 'Zero' discharge shall be adopted.
- ix) Closed circuit cooling shall be adopted to reduce fresh water consumption. Acidic and alkaline effluent from DM water plant shall be neutralized and reused for various activities in the plant. Phenolic effluent shall be treated in BOD plant and used for quenching of hot coke. No wastewater shall be discharged outside the premises and 'Zero' effluent discharge shall be ensured.
- x) Prior permission for the drawl of $380.50 \text{ m}^3/\text{h}$ water from Kharoon River shall be obtained from the concerned department. The water consumption shall not exceed $16 \text{ m}^3/\text{Ton}$ of Steel as per prescribed standard.
- xi) Continuous monitoring of Total Organic Compounds (TOC) shall be done at the outlet of ETP (BOD plant).
- xii) Ground water monitoring around the solid waste disposal site / secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhopal, CPCB and CECB.
- xiii) Char shall be used in AFBC boiler. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. Iron ore fines, mill scales from rolling mill, scrap, BF dust/sludge, coke breeze from coke oven plant,

flue dust from SMS, DRI and sinter plant shall be used in sinter plant in making sinter to be used further in blast furnace. Fly ash shall be used for cement making. Bottom ash shall be used for road making. SMS slag shall be given for metal recovery and properly used. All the other solid wastes including broken refractory mass shall be properly disposed off in environment-friendly manner. Oily waste shall be provided to authorized recyclers/ reprocessors.

- xiv) A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.
- 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 shall be submitted to the Ministry's Regional Office at Bhopal, CECB and CPCB.
- xvi) Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 as amendment in 2003.
- xvii) As proposed, green belt shall be developed in 33 % area within and around the plant premises to mitigate the effects of air emissions as per the CPCB guidelines in consultation with DFO.
- xviii) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Sector 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 must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the State Government.
- ii. No further expansion or modifications in the plant should 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. 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. In plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials/coal handlings etc. shall be provided. Further, specific measures like provision of dust suppression system consisting of water sprinkling, suction hoods, fans and bag filters etc. shall be installed at material

transfer points, blast furnace stock house and other enclosed raw material handling areas. Centralized de-dusting system i.e. collection of fugitive emissions through suction hood and subsequent treatment through bag filter or any other device and finally emitted through a stack of appropriately designed height conforming to the standards for induction furnaces existing in the industry and proposed induction and arc furnaces. Fugitive emissions shall be regularly monitored and records maintained.

- v. At least four ambient air quality-monitoring stations should 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 CECB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhopal and the CECB/CPCB once in six months.
- vi. 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 from time to time. The treated wastewater shall be utilized for plantation purpose.
- 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- viii. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- ix. 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.
- x. 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.
- xi. As proposed, Rs. 125 Crores and Rs. 25.00 Crores 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 Bhopal. The funds so provided shall not be diverted for any other purpose.
- xii. The Regional Office of this Ministry at Bhopal/CPCB/CECB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
- xiii. 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 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.

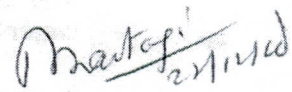
- xiv. Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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


7.0 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.

8.0 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, 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.


(Dr. P. B. Rastogi)
Director