

**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY
CHHATTISGARH
Government of India
Ministry of Environment and Forests**

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No. **418**/SEIAA-CG/ EC/ Rolling Mill /RYP /90/08

Raipur, Date **10/12**/2009

To

M/s API Ispat & Powertech Private Limited,
Village - Siltara,
Near Phase - II Siltara Industrial Growth Centre,
Raipur (C.G.)

Sub: Forward integration of existing sponge iron, power plant and steel ingot/ billets manufacturing plant by installation of oil fired rolling mill of 1,45,250 tonnes per annum (1 x 322.5 tonnes per day + 1 x 161.7 tonnes per day) by M/s API Ispat & Powertech Private Limited at Village - Siltara, Near Phase - II Siltara Industrial Growth Centre, Raipur Chhattisgarh - Environment Clearance Regarding.

Ref: - Your application no. Nil, dated 06/12/2008 and subsequent correspondence ending dated 30/06/2009

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The undersigned is directed to refer to your communications dated 06/12/2008 and 30/06/2009 regarding the subject mentioned above.

It is noted that site of the project is situated within existing plant premises at Village - Siltara, Near Phase - II Siltara Industrial Growth Centre, Raipur (C.G.). It is an existing sponge iron plant 1x350 tonnes per day, 8 MW WHRB power plant, 7 MW FBC based power plant and steel ingot/ billets manufacturing plant 43200 tonnes per annum. In addition to above, Chhattisgarh Environment Conservation Board has granted consent to establish 1x350 tonnes per day sponge iron plant and steel ingot/ billets manufacturing unit 43200 tonnes per annum tonnes per annum. Project proponent has proposed an oil fired rolling mill of 145250 tonnes per annum (1 x 322.5 tonnes per day + 1 x 161.7 tonnes per day) capacity within existing premises.

There are no National Parks, Wild Life Sanctuaries, Bird Sanctuaries, Protected Areas under the Wild Life (Protection) Act, 1972, notified Eco-Sensitive Area, Critically Polluted Area as identified by CPCB, Inter-State border within 10 km radius. No forest land is involved in the acquired site. Topography of the land is more or less flat without many undulations. Nearest habitation is at a distance of about 1.4 km from the site. Nearest surface water body is Chhokhara Nallah & River Kharun flowing at the distance of about 1.25 & 2.2 Km respectively from the site. There are number of industries running in the vicinity; as the unit is running adjacent to the notified industrial area.



The raw materials for proposed rolling mill are semis i.e. billets/ ingots. Yearly requirement of the billets/ ingots would be 1,54,417 tonnes per annum. The semis would be segregated as per size and quality in the raw material yard and would be fed to the oil fired "pusher type" reheating furnaces for heating up to the requisite temperature. The steel is required to be heated uniformly to the re-crystallization temperature for easy rolling. The usual temperature range maintained in the furnaces would be about 1150 – 1200°C depending on the quality of steel and section of semis. The heated ingots/ billets rolled in the mills consisting of rolling strands. The size and configuration of the rolling lines of the mills would be different for rolling of different sizes and shapes.

Total requirement of water for proposed unit would be 118.0 KL/ Day. Project proponent had an agreement of 1000 KL/Day of water with Chhattisgarh Ispat Bhumi Limited, having clause of over draw of 10% excess quantity; hence the total drawl of water from CG Ispat Bhumi Limited would be 1100 KL/Day. Presently project proponent is drawing only 904 KL/ Day of water for the operation of existing plant facility. Waste water generation and its treatment/reuse arrangement would be as follows:-

Source	Effluent Generation Cum/ Day	Treatment/Reuse Arrangement
Domestic	8.0	Would be treated through septic tanks and soak pits.
Cooling	---	Would be recycled through closed cooling circuit. Settling chamber will be provided before holding tank so as to recover mill scale from rolling mill.

About 20.6 KL/ Day of furnace oil would be used for heating the ingots/ billets in both the proposed rolling mills. Flue gases coming from reheating furnaces would be passed through gas cooler (air cooled type) to bring down temperature of the flue gases up to approx. 100°C and thereafter it would be passed through bag filters and vented in to atmosphere through two stacks of height 50 m each for 322.5 and 161.7 TPD rolling mills. All the internal roads converted to concrete road. Additional road in mills area would be of concrete road. All the raw materials & product handling areas of mills would be paved with RCC. Entire raw material and finished products would be transported in covered trucks. Water sprinkling/ spraying system would be deployed along road side and material handling areas so as to avoid dust generation. D.G. sets would be procured with inbuilt enclosures/ silencer as per norms. Earplugs would be provided for the employees working near the noise prone areas. Mill scales and end cuttings would be generated as solid wastes as follows:-

Solid Wastes	Quantity	Disposal
End Cuttings	20.3 TPD	End cutting from rolling mill would be used in induction furnaces unit as raw material.
Mill Scales	10.3 TPD	The mill scales would be manually collected and sold to sinter plant/ ferro alloys/ casting units. The dust from the bag filter would be collected in hoppers and sold out along with mill scales.

It is proposed to construct additional 2 nos. of rain water harvesting structures in consultation with Regional Office, Central Ground Water Board, Raipur. About 76452

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sqm green belt has been developed around the existing site. Proposed cost of the project is Rs. 45.51 Crores.

SEAC, Chhattisgarh considered the application in 20th, 29th and 35th meeting held on 27/12/08, 28/04/09 and 30/06/2009 respectively. Sub Committee of SEAC, Chhattisgarh visited the site on 10/04/2009. Project proponent made presentation in the 35th meeting on 30/06/2009.

The categorization of category 'B' projects or activities in to B1 or B2 lies in the purview of State level Expert Appraisal Committee (SEAC). The Committee considered the proposed activity from the point of view of its location (near industrial area), size and nature i.e. rolling mill of comparatively small capacity using furnace oil as fuel and felt that no significant impact on the surrounding is anticipated. State level Expert Appraisal Committee (SEAC) considered the proposal as 'B2' category and recommended to grant environmental clearance subject to fulfilment of the terms and conditions stipulated in 35th meeting held on 30/06/2009.

The proposal and recommendation of State Level Expert Appraisal Committee, Chhattisgarh was considered in the 11th meeting of SEIAA, Chhattisgarh held on 10/11/2009. The SEIAA, Chhattisgarh perused the proposal/documents submitted by project authority. After detailed deliberations, the SEIAA, Chhattisgarh decided to accept the recommendation of SEAC, Chhattisgarh to grant Environment Clearance. Accordingly, SEIAA, Chhattisgarh hereby accords Environmental Clearance for oil fired rolling mill of 1,45,250 tonnes per annum (1 x 322.5 tonnes per day + 1 x 161.7 tonnes per day) capacity within existing premises subject to strict compliance of the terms and conditions mentioned below:-

- (i) Project authority shall provide adequate facility for proper treatment of industrial effluent (if any) and domestic effluent. Domestic effluent shall be treated in well-designed septic tank and soak pits. In case of any failure of effluent treatment arrangement, it shall be immediately rectified or same alternate arrangement shall be provided. Treated effluent shall be utilized either in process or for plantation purposes within plant premises only. Project authority shall make arrangement of suitable drains/pipe networks to ensure adequate flow for full utilization of treated effluent inside the premises. No effluent shall be discharged out of plant premises under any circumstances. Hence zero discharge condition outside the premises shall be maintained all the time. Project authority shall ensure the treated effluent quality within standard prescribed by Ministry of Environment & Forests, Government of India. Industrial wastewater shall conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and December, 1993 or as amended from time to time.
- (ii) Any liquid effluent what so ever generated from industrial activities shall not be discharged into the river or any surface water bodies under any circumstances, and it shall be reused wholly in the process/plantation. All the industrial effluent generated shall be re-circulated/reused after proper treatment. Project authority shall provide sewage treatment system of adequate capacity for treatment of domestic effluent generated. The untreated/treated domestic effluent shall not be discharge into the river or any surface water bodies. The treated domestic effluent shall be used for plantation purpose after proper disinfection. The concept of zero discharge shall be maintained all the time except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.


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- (iii) Project authority shall provide adequate measuring arrangements for the measurement of water utilized in different categories and effluent generated before commissioning of the rolling mill plant.
- (iv) Closed cycle cooling system shall be provided. Minimum water for makeup purposes shall be ensured
- (v) No ground water shall be used. Water supply shall be through M/s Ispat Bhumi Limited. Total water requirement shall not exceed 118.0 KL/ Day for rolling mill.
- (vi) Project authority shall not use coal in any form as a fuel for reheating furnaces of rolling mill under any circumstances. Only furnace oil of good quality shall be used as fuel in reheating furnaces of rolling mill.
- (vii) Project authority shall provide adequate air pollution control arrangements at all point and non point sources. Collecting hoods and bag filters/packed bed type wet scrubber of adequate capacity and high efficiency shall be installed in rolling mill reheating furnaces to ensure outlet dust (particulate matter) emission less than 50 mg/Nm³ all the time. Low NOx burners shall be installed in reheating furnaces of rolling mill. Project authority shall install suitable & effective air pollution control equipments at all transfer points, junction points etc. also. All the conveying system, transfer point, junction point etc. shall be covered. Adequate provision shall be made for sprinkling of water at strategic locations to ensure dust does not get air borne. For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant shall be ensured. Proper ventilation shall also be provided in rolling mill plant. The emission of pollutants from any point source shall not exceed the following limit: -

Particulate Matter	50 mg/Nm ³ (Fifty Milligram per Normal Cubic Meter)
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Project authority shall provide proper space provision for further retrofitting of air pollution control systems in case of further stringency of particulate matter emission limit. Two stacks of height 50 m each for 322.5 TPD and 161.7 TPD rolling mills shall be installed. The height of other stack(s) (if any) shall not be less than 30 meters.

- (viii) The gaseous emissions from various processes units shall conform to the load/mass based standards notified by this Ministry of Environment and forests, Government of India on 19th May, 1993 and standards prescribed from time to time. The Chhattisgarh Environment Conservation 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.
- (ix) Secondary fugitive emissions shall be controlled and shall be kept within the prescribed limits and regularly monitored. Guidelines/Code of Practice issued by the CPCB in this regard shall be followed. Project authority shall maintain fugitive dust emissions to the minimum level in the areas of road transportation routs of raw material, product to ensure National Ambient Air Quality Standards prescribed including black topping/asphalting/concreting and maintenance with requisite water sprinkling arrangements.

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- (x) All air pollution control systems shall be kept in good running conditions all the time and failure (if any), shall be immediately rectified without delay otherwise similar alternate arrangement shall be made. In the event of any failure of any pollution control system adopted by the project authority, the respective production unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (xi) Regular monitoring of ground level concentration of SO₂, NO_x, SPM and RSPM at at-least four stations shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, the plant shall cease all operations till necessary control measures are provided. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with Chhattisgarh Environment Conservation Board Raipur. The data so collected shall be properly analyzed and periodic reports shall be submitted to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Raipur, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.
- (xii) Project authority shall install separate electric metering arrangements with time totalizer and interlocking arrangement for the running of pollution control devices. These arrangements shall be made in such a fashion that any non-functioning of pollution control device/devices shall immediately stop the electric supply to the fuel/raw materials supply system and shall remain tripped till the pollution control device/devices are made functional again/rectified to achieve the desired efficiency.
- (xiii) Project authority shall utilize the fly ash bricks/blocks etc. in all construction activities.
- (xiv) Project authority shall take effective steps for safe disposal of solid wastes and sludge. End cutting from rolling mill shall be used as raw material in induction furnace unit. Mill scales shall be sold to sinter plant/ ferro alloys/ casting units. Oily sludge shall be sold to authorized recyclers / re-processors for proper disposal through incineration. Project authority shall obtain authorization from Board for management and handling of hazardous materials as per Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
- (xv) All the internal roads shall be made pucca before commissioning of the rolling mill plant. Project authority shall adopt good house keeping practices.
- (xvi) Project authority shall take proper action to control the noise pollution. Project authority shall install appropriate noise barriers /control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation to control the noise. Earplugs/ear muffs etc. shall be provided to the employee working in the high noise areas. Leq of /noise levels emanating from machines shall be limited to 75 dBA. The noise level shall not exceed the limits 75 dB (A) during the daytime and 70 dB (A) during the night time within the factory premises. Project authority shall take adequate measures for control of noise level below 85 dB (A) in the work environment. Workers engaged in noisy areas shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including rotating them to non-noisy/ less noisy areas.
- (xvii) Project authority shall provide appropriate arrangements to avoid air pollution, water pollution, noise pollution etc. during construction phase and during

transportation of plants/machineries/equipments/ construction materials etc. to the site. For controlling fugitive dust during transportation and construction works, regular sprinkling of water in village roads and other vulnerable areas of the plant shall also be ensured. The emission from vehicles engaged for transportation of plants/machineries/ equipments/construction materials etc. to the site shall be ensured within prescribed vehicle emission norms. First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.

- (xviii) The construction of effluent treatment system and installation of air pollution control equipments shall be taken up simultaneously with other civil/mechanical works of forward integration unit. The progress of the activities related to the project shall be submitted periodically to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Raipur, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.
- (xix) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires. Copy of the these measures with full details along with location plant layout shall be submitted to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Raipur, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.
- (xx) Disaster Management plan shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the DMP.
- (xxi) As far as possible maximum area of open spaces shall be utilized for plantation purposes. Project authority shall abide by the decisions taken by Ministry of Environment and Forests, Government of India / Central Government/ Central Pollution Control Board from time to time in this regard. Tree density of 1500-2000 trees per hectare (600 nos. of plants per acre) with local broad leaf species should be maintained. A wide green belt of broad leaf local species shall be developed in at least 33% of the project area. Central Pollution Control Board guidelines shall be followed in planning and developing green belt and selection of species etc.
- (xxii) Project authority shall provide garland drains with appropriate check dams all along the raw materials storage areas etc. to avoid any possibility of erosion (wearing away) during rain. Garland drain (size, gradient & length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the project site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains. Project authority shall provide adequate collection and treatment arrangement for proper management of storm water. The surface run-off shall be de-silted through a series of check dams and drains.
- (xxiii) Project authority shall adopt rainwater-harvesting technique in the project area for recharge of ground water. Entire rain water shall be properly stored and used for various processes. The rainwater-harvesting technique shall be incorporated right from the design stage of all structures. Project authority shall develop rainwater-harvesting structures to harvest the rainwater for

utilization in the lean season as well as to recharge the ground water table. A detailed scheme for rainwater harvesting to recharge the ground water aquifer shall be prepared in consultation with Central Ground Water Authority/State Ground Water Board. A copy of the same shall be submitted within three months to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Raipur, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.

- (xxiv) Provision shall be made for the housing of 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, crutch etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xxv) Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the factories Act.
- (xxvi) The project proponent shall also comply with all the environmental protection measures and safe guards recommended in the Environment Management Plan.
- (xxvii) Project authority shall establish an environmental management cell to carryout function relating to environmental management under the supervision of senior executive who shall directly report to the head of organization. A full-fledged laboratory with qualified technical/scientific staffs to monitor the influent, effluent, ground water, surface water, soil, stack emission and ambient air quality etc. shall be provided.
- (xxviii) Recommendations made in the CREP for the steel plants shall be implemented.
- (xxix) Adequate funds shall be allocated for undertaking CSR activities (community welfare, environmental development activities apart from committed plantation) and in any case it shall not be less than Rs. 4.60 lakhs per year with 10% annual increase in subsequent years. Project authority must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc. Details of activities shall also be submitted to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Raipur, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year-wise expenditure should be reported to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Raipur, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal. Local laboures shall be given employment during construction and subsequently absorbed in the plant.
- (xxx) The issuance of this environmental clearance does not convey any property rights in either real or personal property, or any exclusive privileges, nor does not authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State or Local laws or regulations.
- (xxxi) SEIAA, Chhattisgarh reserves the right to amend/cancel any of the conditions and add new conditions and make further stringent the emission/effluent limit

as and when deemed necessary in the interest of environmental protection, change in the project profile or non-satisfactory implementation of the stipulated conditions etc.

- (xxxii) The Project authority shall ensure the generation of employment in the local areas, recruitment shall be done by inviting applications first from the local residents of the Chhattisgarh State. In case of non-availability of suitable candidates for certain post in the first attempt, the Project authority may call the applications as second call not only from local residents of the Chhattisgarh State but also from other State.
- (xxxiii) The Project authority shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Chhattisgarh Environment Conservation Board and may also seen at Website of the Ministry of Environment and Forests at www.envfor.nic.in and website of SEIAA, Chhattisgarh at www.seiaacg.org.
- (xxxiv) Half yearly report on the status of implementation of the stipulated conditions and environment safeguards shall be submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Raipur, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.
- (xxxv) Regional Office of the Ministry of Environment and Forests at Bhopal shall monitor the implementation of the stipulated conditions. A complete set of documents including Environment Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.
- (xxxvi) The project authorities shall inform the Regional Office as well as the SEIAA, Chhattisgarh regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of commissioning of rolling mill plant.
- (xxxvii) Full cooperation shall be extended to the Scientists/Officers from the SEIAA, Chhattisgarh, Ministry of Environment & Forests, Government of India/Regional Office, Ministry of Environment & Forests, Government of India, Bhopal/the CPCB/the Chhattisgarh Environment Conservation Board, who would be monitoring the compliance of environment status.
- (xxxviii) The environment clearance accorded shall be valid for a period of 5 years to start of production operations.
- (xxxix) In case of any deviation or alteration in the proposed project from those submitted to this SEIAA, Chhattisgarh for clearance, a fresh reference should be made to the SEIAA, Chhattisgarh to assess the adequacy of the condition(s) imposed and to add additional environment protection measures required, if any. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests, Government of India/SEIAA, Chhattisgarh.
- (xl) The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the State Government.

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- (xli) The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) act, 1986 and rules there under, Hazardous Wastes (Management, Handling and Trans Boundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.
- (xlii) Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act. 1997.
- (xliii) Chhattisgarh Environment Conservation Board shall display a copy of the clearance letter at the Regional Office, District Trade and Industries Centre and Collector's Office / Tehsildar's Office for 30 days.

Please acknowledge the receipt of this letter.

For & on behalf of
State Level Environment Impact
Assessment Authority, Chhattisgarh

Purkes 8/12
Member Secretary

State EIA Authority, Chhattisgarh
Raipur (C.G.)

Endt. No. /SEIAA-CG/ EC/ Rolling Mill /RYP /90/08 Raipur, Date / /2009

Copy to:-

1. The Secretary, Department of Environment, Mantralaya Chhattisgarh, Raipur-492 001
2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, Delhi - 100 032.
3. The Chairman, Chhattisgarh Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road Avanti Vihar, Raipur (C.G.).
4. District Collector, District - Raipur, Chhattisgarh.
5. Director, Ministry of Environment & Forests, Government of India, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi.
6. The Chief Conservator of Forests (C) Regional Office (WZ), Ministry of Environment & Forests, Kendriya Paryavaran Bhawan, Link Road No.- 3, E-5, Arera Colony, Bhopal.

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Member Secretary
State EIA Authority, Chhattisgarh
Raipur (C.G.)

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