

F. No. J-11011/02/2016-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 12th April 2017

To

**M/s Electrosteel Casting Limited,
30, BT Road, Khardah, P.O. Sukchar
Kolkata – 700115**

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Subject: Proposed installation of the Ferro Alloy Plant through setting up of 1x6 MVA and 1x9 MVA submerged Arc Furnaces for production of Ferro Manganese (38,156 TPA) or Silico Manganese (27,109 TPA) or Ferro Silicon (10,421 TPA) by M/s Electrosteel Casting Limited, located at Haldia, District Purba Medinipur in West Bengal – Environmental Clearance regarding.

Sir,

This has reference to your online application No. IA/WB/IND/42082/2016 dated 9th January, 2017 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The ToRs to the project were prescribed by the Ministry vide letter of even number dated 07.04.2015. The proposed project activity is listed at Sl. No. 3(a) in Metallurgical industries under Category 'A' of the Schedule of EIA Notification 2006.

2.0 The proposed Ferro-alloy plant of M/s Electrosteel Castings Ltd. (ECL), located at Haldia, District Purba Medinipur, State West Bengal was initially received in the Ministry on 22nd January, 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 4th meeting held on 25th February, 2016 and prescribed ToRs to the project for undertaking detailed EIA study for the purpose of obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 7th April, 2016. Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 9th January 2017.

3.0 Considering the own requirement of Ferro Alloy and future growth potential of ferro-alloys market at domestic & international level, PP has proposed to install a ferro-alloy plant at Haldia in West Bengal through installation of 1x6 MVA & 1x9 MVA Submerged Arc Furnaces for production of Ferro-Manganese – 38,156 TPA or Silico Manganese – 27,109 TPA or Ferro Silicon–10,421 TPA. The proposed units along with their capacities are given below:

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Environmental Clearance for the proposed installation of the Ferro Alloy Plant through setting up of 1x6 MVA and 1x9 MVA submerged Arc Furnaces for production of Ferro Manganese (38,156 TPA) or Silico Manganese (27,109 TPA) or Ferro Silicon (10,421 TPA) by M/s Electrosteel Casting Limited, located at Haldia, District Purba Medinipur in West Bengal

Sl. No.	Facilities	Proposed Unit	Production Capacity
1.	Ferro Alloys Plant	1x6 MVA Submerged Arc Furnace & 1x9 MVA Submerged Arc Furnace	Ferro Manganese – 38,156 TPA or Silico Manganese – 27,109 TPA or Ferro Silicon– 10,421 TPA

4.0 The total land required for the project is 3.19 acres i.e. 1.29 ha of own vacant Industrial land. No forestland involved. The entire land has been acquired for the project. River Hooghly is passing at a distance of 4.6 km from the Project site. It has been reported that no water body exists at the project site. The topography of the area is flat and reported to lie between 22°5'20.89"N Latitude and 88°6'34.75"E Longitude, at an elevation of 3.66 m AMSL. The ground water table is reported 3 m below the land surface during the post-monsoon season and 4 m below the land surface during the pre-monsoon season. It was reported that no national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

5.0 The targeted production capacity of the Ferro-alloy plant is Ferro-Manganese – 38,156 TPA or Silico Manganese – 27,109 TPA or Ferro Silicon–10,421 TPA. The Manganese ore for the plant would be procured from (Mines in Orissa/M.P./Imported). The ore transportation will be done through rail and road.

6.0 The water requirement of the project is estimated as 456 m³/day, which will be obtained from the Haldia Development Authority (HDA). The power requirement of the project is estimated as 12.5 MW, which will be sourced from Captive Power Plant of the company, operating in the adjacent land and partly from the supply system of WBSEDCL.

7.0 Ambient air quality monitoring has been carried out at 8 locations during 10th April, 2016 – 9th July, 2016 and the data submitted indicated: PM₁₀ (48 µg/m³ to 116 µg/m³), PM_{2.5} (18 µg/m³ to 50 µg/m³), SO₂ (5 µg/m³ to 22 µg/m³) and NO_x (18 µg/m³ to 52 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 2.6 µg/m³ with respect to the PM which will occur at a distance of 0.3 km in WSW direction w.r.t. the ARP.

8.0 It has been reported that there are 4,30,230 people in the study area of the proposed project. As the land is already acquired, the question of rehabilitation and resettlement is not an issue for the proposed project.

9.0 It has been reported that a total of 38,160 tons/year of Ferro-Manganese slag and 18,446 tons/year of Silico-Manganese slag will be generated due to the project. Ferro-Manganese slag will be used in Silico Manganese manufacturing and Silico-Manganese slag will be used for road construction / land filling. It has been envisaged that an area of 0.425 ha will be used for green belt development around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

10.0 The Public hearing of the project was held on 20th December, 2016. commitments regarding air pollution control and development activities in the locality, maximum local employment generation, implementation of prevailing minimum wage rate for workers,

protection of occupational health and safety of workers, infrastructure development of the locality such as road network, supply of drinking water, installation of street lights to the local villages.

11.0 The capital cost of the project is Rs. 50 Crores and the capital cost for environmental protection measures is proposed as Rs. 4.32 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 26.4 Lakhs. Manpower requirement for the project is 178 persons.

12.0 The company proposes to invest on the Enterprise Social Commitment (ESC) activities. For this purpose, the company has allocated Rs. 125 Lakhs, which is 2.5% of the total project cost (Rs. 50 Crores). This fund shall be utilized over a period of 5 years. Company has identified certain areas, to be considered for implementing the ESC activities in the context of the local scenario of the area:

Sl. No	Activity	YEARWISE INVESTMENT (Rs. IN LAKHS)					TOTAL INVESTMENT (Rs. IN LAKHS)
		1 st Yr.	2 nd Yr.	3 rd Yr.	4 th Yr.	5 th Yr.	
1.	Drinking Water Infrastructure (Tubewell in nearby villages – 10nos. @ Rs. 1.0 Lakhs)	2.0	2.0	2.0	2.0	2.0	10.0
2.	Development of Community Hall – 4 nos.	7.5	7.5	7.5	7.5	-	30.0
3.	Local Village Pond up gradation -5 ponds	4.0	4.0	4.0	4.0	4.0	20.0
4.	Street Lighting (solar) provision at suitable public places – 50 nos.	5.0	5.0	5.0	5.0	5.0	25.0
5.	Financial Support to the Local School for extension of building /class room	6.0	6.0	6.0	6.0	-	24.0
6.	Scholarship for BPL category students	1.2	1.2	1.2	1.2	1.2	6.0
7.	Construction of Charitable Dispensary -1 No.	5.0	5.0	-	-	-	10.0
Total		30.7	30.7	25.7	25.7	12.2	125.0

13.0 The proposal was considered during the 15th meeting of Expert Appraisal Committee [EAC] (Industry-I) held on 2nd – 3rd February, 2017 and recommended the project for Environmental Clearance and stipulated Specific Conditions along with other environmental conditions while considering for accord of environmental clearance.

14.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant environmental clearance to the above mentioned proposal for installation of the Ferro Alloy Plant through setting up of 1x6 MVA and 1x9 MVA submerged Arc Furnaces for production of Ferro Manganese (38,156 TPA) or Silico Manganese (27,109 TPA) or Ferro Silicon (10,421 TPA) by M/s Electrosteel Casting Limited, located at Haldia, District Purba Medinipur in West Bengal under the provision of

EIA Notification dated 14th September, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

- i. The project proponent should install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. Bag filters to be installed to reduce the emission of Particulate Matter (PM). PM emission should not exceed 100 mg/m³. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the permissible limits which have been most recently prescribed by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB should also be followed.
- iii. Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- iv. Neurological Evaluation of workers exposed to Manganese should be monitored annually and the report should be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- v. Measures shall be taken to reduce PM levels in the ambient air. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks should be provided. In addition, sufficient air pollution control devices viz. bag house, bag filters etc. should be provided.
- vi. Dust extraction system comprising of pulse jet type bag filter, centrifugal fan and motor, duct work including suction hoods, duct supports, stack, duct hopper, rotary air lock valves etc. should be installed to control the primary and secondary emission.
- vii. Water sprinkling arrangements as well as dry fog system to control fugitive emission shall be put up. Water sprinkling should be carried out at the raw material stockyard to control fugitive dust emissions.
- viii. Efforts should be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption. Water requirement should be modified accordingly.
- ix. 10-15 m wide green belt should be developed all along the boundary of the plant and in all 33% of the area should be developed green by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines. The entire plantation work should be completed in 3 years.
- x. All the ferro alloy slag shall be used in the preparation of building materials.
- xi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

- xii. An amount equal to Rs. 125 Lakhs, which is 2.5% of the total project cost (Rs. 50 Crores) shall be earmarked towards the Enterprise Social Commitment based on issues raised during the Public Hearing and needs of local people. Item-wise detailed plan with time bound action plan would be prepared as indicated by the project proponent and this plan shall be implemented. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xiii. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xiv. The project proponent shall fully provide for LED lights in their offices and residential areas.
- xv. 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, 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 West Bengal 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, Forests and Climate Change (MoEF&CC).
- iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM₁₀, PM_{2.5}, 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.
- iv. 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 form time to time. The treated wastewater shall be utilized for plantation purpose.
- 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

- 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. 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, Forest and Climate Change (MoEFCC) 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 Bhubaneshwar. 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&CC at Bhubaneshwar. 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&CC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneshwar / 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 along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MoEF&CC at Bhubaneshwar 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, Forests and Climate Change (MoEF&CC) 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 Bhubaneshwar.

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.

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

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

17.0 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(Sharath Kumar Pallerla)
Scientist 'F'

Copy to:-

1. The Secretary, Department of Environment, Government of West Bengal.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110032.
3. The Chairman, West Bengal Pollution Control Board, Paribesh Bhavan, 10A, Block-L.A., Sector III, Salt Lake City, Calcutta - 700 098
4. The Additional Principal Chief Conservator of Forests (C) Ministry of Environment Forest and Climate Change Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar – 751023 Email: roez[dot]bsr-mef[at]nic[dot]in
5. Guard File / Record File/Monitoring file.


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