

Plant Office:
Village: Siyaljori, PO - Jogidih
PS - Siyaljori, District - Bokaro
Jharkhand - 828 303
CIN: L27310JH2006PLC012663

ELECTROSTEEL STEELS LIMITED

27th May 2019

ESL/ENV/MoEFCC/2018-19/04

O/C

The Director (S)
Ministry of Environment, Forest and Climate Change,
Regional Office (ECZ),
Bungalow No. A-2, Shyamali Colony,
Ranchi - 834002

Dear Sir,

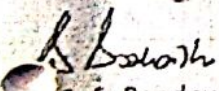
Sub: Compliance Status of M/s Electrosteel Steels Limited at Siyaljori, Bokaro,
Jharkhand

Ref: Ministry's letter No. - J-11011/137/2006-IA. II (I) dated 21.02.2008

Please find enclosed herewith the half yearly compliance report for the period from October 2018 to March 2019 with respect to the EC conditions as referred above with necessary enclosures along with Half-yearly Monitoring Report on Air (Ambient Air & Fugitive emissions), Water (Ground Water and Surface Water), Noise (Ambient & Work zone), Stack and Meteorological data.

Thanking you,

Your's very truly


S. S. Pandey
Head-Environment

Encl: As above.

Copy to :

- Central Pollution Control Board
Eastern Zonal Office, Block 502, Southend Conclave,
1582- Rajdanga Main Road, Kolkata - 700107
- Regional Officer, Jharkhand State Pollution Control Board,
H.I.G.-1, Sardar Patel Nagar, Hirapur,
Dhanbad-826001



Regd. Office: 801, Uma Shanti Apartments, Kanke Road, Ranchi-834008

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Received
S. S. Pandey
31/05/2019
Jharkhand State Pollution Control Board
Regional Office
Dhanbad

Compliance status of Environmental Clearance (EC) granted by Ministry of Environment, Forests and Climate Change, Govt. of India vide letter no. F. No. J- 11011/137/ 2006- 1A 11, Dated 21st February, 2008

SPECIFIC CONDITIONS:

| Sl. No. | EC vide F. No. J- 11011/137/ 2006- 1A 11, Dated 21 st February, 2008 | Compliance Status by ESL |
|---------|---|--|
| i. | Conformation to the land oustees for acquisition of agriculture land shall be paid as per the State Government Norms and the norms prescribed in the National Resettlement and Rehabilitation Policy, 2007. | Complied. |
| ii. | Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. Online stack monitoring facilities for all the stacks and sufficient air pollution control devices shall be provided to keep the emission levels below 100mg/Nm ³ and reports submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and Jharkhand SPCB (JSPCB). | <p>Adequate dust suppression system has been introduced in all Conveyor System and water sprinklers are installed at vulnerable points to control RSPM in the ambient air.</p> <p>On-line stack monitoring system has been installed in all major stacks connected with air pollution devices like ESP, Bag Filters to keep emission level below the prescribed limit of 100 mg/Nm³. The Monitoring data sheet is enclosed as Annexure-A.</p> <p>The monitoring report is being submitted to MoEFCC/CPCB/JSPCB on regular basis. The last monitoring data sheet was submitted to MoEFCC vide letter no. ESL/ENV/MoEFCC/2017-18/05 of 24.11.2018.</p> |
| iii. | Electrostatic precipitator (ESP) shall be provided to WHRB. Hot gasses from DRI plant shall be utilized in the WHRB. | <p>WHRB has been installed for hot gas from the non-recovery type Coke Oven Plant. DRI plant not set up yet.</p> <p>Blast Furnace Gas Cleaning plant provided</p> |

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| | <p>Gas cleaning plant having dust catcher and bag filter shall be provided to blast furnace (BF).</p> <p>Low NOx burners shall be provided to control NOx levels.</p> <p>In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust extraction system shall be provided to control air emissions at material transfer and sizing plants. Further, specific measures like water sprinkling shall be carried out and fugitive emissions shall be controlled, regularly monitored and records maintained.</p> | <p>with Dust catcher and dry bag filter system.</p> <p>Low NOx regenerative burners are provided in all the reheating /annealing furnaces.</p> <p>Suitable Control Measures provided for controlling In plant fugitive emission at all vulnerable sources. Dust suppression / extraction system at material transfer and sizing plants has been provided. Water sprinklers have been provided to control fugitive emissions.</p> <p>Monitoring and recording is being carried out and maintained as per CPCB guide lines. The half yearly monitoring data sheet for the period of October -2018 to March -2019 is enclosed as Annexure-A.</p> |
| iv. | <p>Gaseous emission levels including secondary fugitive emissions from the blast furnace and sinter plant shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored.</p> <p>Guidelines / Code of practice issued by the CPCB shall be followed.</p> | <p>These are being complied.</p> <p>Gaseous emission levels including secondary fugitive emissions from the Blast Furnace is being controlled by De-dusting systems with Bag Filter in both Blast Furnace # 2 & 3.</p> <p>ESP and Bag filters have been provided at Sinter Plant and is working efficiently, thereby keeping emission levels including secondary fugitive emissions well within the permissible limit.</p> |
| v. | <p>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.</p> | <p>Being complied.</p> <p>All the standards prescribed for the Coke Oven Plant is being followed.</p> <p>We have installed the clean technology of Non-Recovery type Coke Oven. Waste Heat Recovery Boilers have been installed and commissioned to use Coke oven gases thereby no hot flue gas is being discharged</p> |

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| | | into the air. |
| vi. | The total water requirement from River Damodar shall not exceed 86,016m ³ /day. No ground water shall be used. Waste water from process and domestic shall be treated. The treated waste water shall be recycled and reused and 'Zero' effluent discharge shall be ensured. No fresh water shall be discharged outside the premises. | Being complied. Water from Damodar River through closed pipes lines reach at site. Water meters are commissioned at plant. No ground water is used for operation of the plant. Effluent Treatment Plant has been installed for recycle and reuse of effluent in the plant. Plant is maintaining zero effluent discharge concepts. |
| vii. | Continuous monitoring of total Organic Compounds (TOC) shall be done at the outlet of ETP (BOD) Plant. | As Non-Recovery type Coke Oven has been installed, hence there is no requirement of BOD Plant. |
| viii. | 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 Bhubaneswar, CPCB and JSPCB. | Ground water monitoring is being carried out regularly and report is being submitted. Report enclosed as Annexure-A. |
| ix. | Coke fines, scraps, flue dust from coke oven plant and BF, scales from SMS, quick lime and lime fines from lime plant and Dolo plant shall be used in Sinter plant. Casting rejection and runner from DI plant shall be re-melted and reused. Scrap from rolling mill and SMS shall be used in BOF. All the other solid wastes including broken refractory mass shall be properly disposed off in environment-friendly manner. Oily waste shall be provided to authorize recycler/ re-processors. | Coke fines, flue dust from Coke Oven plant and BF, scales from SMS and rolling Mill are being used in Sinter Plant. Scraps from Rolling Mills & SMS are being used in BOF of SMS. Other solid waste including broken refractory mass has been disposed off by using for land development and road making. Disposal of different waste from different units in accordance with prescribed procedure/law is being followed. Used oil is sold to the enlisted authorized Party and necessary documents are being |

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| | | regularly submitted to JSPCB. |
| x. | All the char from DRI shall be utilized in AFBC boiler of the power plant and no char shall be disposed off anywhere else. All the blast furnace slag shall be granulated and provided to cement manufacturers for further utilization. SMS slag shall also be properly utilized. A time bound action plan should be submitted to reduce solid waste, its proper utilization and disposal. | As informed earlier DRI plant not yet set up hence no generation of Char. BF slag is granulated at site and provided to cement manufacturers. SMS slag is being properly disposed and after recovery of metals, it is being used for road making. |
| xi. | Fly ash/ Bottom Ash from power plant shall be provided to brick manufacturing plants. Bottom ash shall be disposed off in a suitably designed landfill as per CPCB guidelines to prevent leaching to the sub soil and underground aquifer. Proper utilization of fly ash shall be ensured as per Fly Ash notification, 1999 as amendment in 2003. | The fly ash is already being used in filling of low laying area within the plant premises, construction of road, railway track. Fly ash is also being given to brick manufacturing units and cement manufacturing units as per their demand. |
| xii. | As proposed Green Belt shall be developed in 33% area within and around the plant premises as per the CPCB guidelines in consultation with DFO. | Development of green belt in & around the plant is in progress. Various patches of green belt, within the plant premises have already come up. |
| xiii. | All the recommendations in the Charter on Corporate Responsibilities for Environment Protection (CREP) for the Steel Plants shall be implemented. | All the recommendations of CREP guideline of Integrated Iron & Steel Industry are being followed. Necessary steps have been taken to comply the CREP guidelines. |
| xiv. | Recommendation of the State Forest Department shall be obtained regarding likely impact the proposed steel plant on the surrounding reserve/Protected forest and implemented. | Complied. |

GENERAL CONDITIONS:

| Sl. | EC vide F. No. J- 11011/137/ 2006- 1A 11, | Compliance Status by ESL |
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October - 2018 to March -2019- Half Yearly Compliance Report

Page 4/8

| No. | Dated 21 st February, 2008 | |
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| i. | The project authorities must strictly adhere to the stipulations made by the Jharkhand Pollution Control Board (JSPCB) and the State Government. | Being strictly Complied. Compliance of stipulations made by JSPCB and State Government are being ensured. |
| ii. | No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forest. | Compliance of proper procedure shall be ensured as and when required. |
| iii. | The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19 th 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. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit. | Gaseous emission from various process units do conform to the load/ mass based standards notified by the Ministry. Monitoring is being carried out regularly and the report is being submitted. All the values recorded are well within the prescribed limit. The half yearly monitoring data sheet for the period of – October - 2019 to March - 2019 is enclosed as Annexure-A. Necessary Electric circuit devices have been provided in the process system with ESP and other pollution control devices like bag-filters etc. to ensure requirement of interlocking facilities. |
| 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, SO ₂ and NO _x is anticipated in consultation with the Jharkhand JSPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the Jharkhand SPCB/CPCB once in 6 months. | Four ambient air quality monitoring stations have been installed in consultation with JSPCB. CAAQM Stations have been installed and commissioned to monitor Ambient Air Quality continuously. Monitoring of Ambient air & Stack emission is being carried out regularly. Monitoring Report is enclosed as Annexure-A. |
| v. | Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422(E), | Being Complied. Effluent Treatment Plant (ETP) has been |

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| | dated 19 th May 1993 and 31 st December 1993 or as amended from time to time. The treated waste water shall be utilised for plantation purpose. | installed at SMS, DIP, WRM and Bar Mill for treatment of process effluents. After treatment, treated effluent is entirely reused. Common ETP has been installed to take care of the other process effluents to meet the zero discharge concepts. |
| vi. | The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measure including acoustic hoods, silencers, enclosures etc, on all source of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time). | Measures including acoustic hoods, silencer, enclosures etc are installed on all sources of noise generation. Noise monitoring at various locations are being carried out regularly by NABL accredited party. The half yearly monitoring data sheet for the period of October -2018 to - March 2019 is enclosed as Annexure-A. |
| vii. | Occupational health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. | Being Complied. With installation of pollution control measures, the operation in our steel plant is not hazard in nature. However, ESL has established a full-fledged Occupational Health Centre with qualified Occupational Health Physician. The entire employees undergo pre-employment medical examination and the records are being maintained. Further, periodical Occupational Health surveillance of the workers are being done and records are maintained as per Factories Act. |
| viii. | The company shall develop surface as well as ground water harvesting structures to harvest rain water for utilization in the lean season besides recharging the ground water table. | Being complied. Rain water harvesting structures have been made at various locations in and around the plant. Ponds have been created to store rain water in and around nearby villages. Further, water collected |

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| | | in the Joria passing through the Plant is retained by bunds. |
| ix. | The project proponent shall also comply with all the environmental protection measures and safe guards recommended in the EIA/EMP report. Further the Company must undertake socio economic development activities in the surrounding villages like community development programmes, educational programme, drinking water supply and health care etc. | Being complied. Various environmental protection measures have been taken as already stated above. CSR activities are being undertaken regularly for socio economic development etc. in the surrounding villages. |
| x. | As mentioned in the EIA/EMP Rs 400.00 cores earmarked towards the environmental pollution control measures shall be judiciously utilised to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government. The fund provided shall not be diverted for any other purpose. | Complied. The expenses for environmental pollution control measures amounting to Rs. 673.26 Crores have been procured. Funds provided have been fully utilized under the Environment Management programmed for Air Pollution control equipments, water treatment plant, rain water harvesting, plantation etc. The company has thereafter made further investment in this regard and such these are full compliance terms and condition of MoEFCC in this regard. |
| xi. | The Regional office of this Ministry at Bhubaneswar / CPCB / Jharkhand SPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly. | Being Complied. Compliance Reports are being submitted at regular intervals. Previously six monthly compliance Report was submitted to MoEFCC vide letter no. ESL/ENV/MoEFCC/2017-18/05 of 24.11.2018 . |
| Xii | The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry | Complied. ESL informed Public within 7 days regarding environment clearance by the |

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| | and copies of the clearance letter are available with the JSPCB and may also be seen at Website of the Ministry of Environment and Forest at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least two local newspapers that are widely circulated in the region of which one should be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office. | MOEF through website of MoEFCC and also advertised in two local news paper one in vernacular language and the other in English News Paper. Hindustan Times Feb 25, 2008 and Am Suchana Feb 26, 2008. The copy of the same is already submitted in our last report vide letter no. ESL/ENV/ES-01/2014-01 of 30.05.2014. |
| 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. | Complied. |