NMDC / NISP / EC / 2017/2160

Date: 26/04/2017

To,

Additional Principal Chief Conservator of Forests (C)
Regional office (West Central Zone),
Ministry of Environment, Forest & Climate Change,
Ground Floor, East Wing, New Secretariat Building, Civil Lines,
NAGPUR – 440001 (Maharashtra State)


Sir,

With reference to above mentioned subject and letter, we hereby submit Six Monthly Progress Report (OCT 2016–MARCH 2017) towards compliance of general condition No 14 for kind perusal please.

Thanking You,

Your’s Faithfully,

(PRASANT DASH)
EXECUTIVE DIRECTOR

CC:

1. In-Charge, Central Pollution Control Board, 3rd Floor, Sahkar Bhawan, North TT Nagar, BHOPAL (M.P.) 462003 – for kind information please.
2. Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, NAYA RAIPUR (CG) 492002 – for kind information please.

पंजीकृत कार्यालय : 10.3.311/ए खनिज भवन, मासाब टैंक, हैदराबाद – 500173
Regd. Office: 10-3-311/A Khanij Bhawan, Masab Tank, Hyderabad – 500173
NMDC Iron and Steel Plant, Nagarnar, Dist-Bastar, (C.G.)

Six Monthly Progress Report

(OCT 2016 to MARCH 2017)

Compliance Report of Environment Clearance issued vide-


A) SPECIFIC CONDITION:

1. No construction activity should be started at the site without obtaining prior approval from the Central/State Govt. for the 25.72 forest land under the Forest (Conservation) Act, 1980 and subsequent amendments.

   a) 1st Stage Forest Clearance for 25.72 ha Forestland was issued by MoEF, Regional Office (WR) Bhopal on 04.08.2010 vide letter No-6-CHO/012/2010/BHO/1506.

   b) 2nd Stage Forest Clearance was obtained from MoEF, Regional Office (WR) Bhopal on 06.05.2011 vide letter No-6-CHCO12/2010/BHO/3034.

2. 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. 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.

   On line Ambient Air Quality Monitoring and continuous stack monitoring facilities will be installed with interlocking facilities in Coke ovens, by products plant, SMS, Blast furnace, Thin slab caster and Hot strip Mill, Sinter plant etc.

3. Electrostatic precipitator (ESP) shall be provided to sinter plant, stock house and cast house of blast furnace. Gas cleaning plant comprising of dust catcher and 2-stage venturi scrubber followed by wet ESP shall be provided to blast furnace (BF) Bag filters shall be provided to ladle furnace. Dust extraction system shall be provided to coke oven. Air emission from coke oven operation shall be also controlled by providing high pressure liquor ammonia system, pushing emission control (PEC), leak proof doors etc. BF gas, coke oven gas, mixed gas (BF & CO gas), BOF shall be used to generate power. Part of the BF gas shall be supplied to CDP plant, cast house; CO to BOF shop & CCM shop and coke oven and BF gas to coke oven battery, hot strip mill, sinter plant hot strip mill, lime and dolomite plant. The SPM levels from all the sources shall be controlled within 100 mg/Nm.

   All Pollution Control Equipment / Environmental abatement measures stipulated has been considered while ordering various major technical and auxiliary packages. Presently, construction work is under progress.
4. 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. All the essential by-products like ammonia, crude tar and elemental Sulphur shall be recovered. Naphthalene scrubbing and solar oil regeneration unit shall be installed to remove and recover naphthalene from coke oven gas.

Coke oven gas will be used to generate power using wasteheat recovery stream generators. Naphthalene scrubbing and solar oil regeneration unit will be installed to recover naphthalene from coke oven gas. In by product plant all essential by products like ammonia, crude tar and elemental sulphur will be recovered.

5. In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust extraction system with bag filters shall be provided to Coal Crusher House / Coke Sorting Plant, Raw Material Handling Section, SMS Material Handling Area, Lime and Dolomite Plant. Water Sprinkling and Dry Fogging System shall be provided for dust suppression from Raw Material Handling Area. Dust extraction system with Bag Filters / ESP shall be provided to Stock House and Cast House of Blast Furnace (BF). Bag Filters shall be provided to Ladle Furnace. Dust extraction system with ESP shall be provided to Sinter Plant to control process and fugitive emission. All the roads in the work area shall be asphalted. Monitoring of fugitive emissions in the work zone environment shall be carried out regularly as per the CPCB guidelines and reports submitted to Jharkhand PCB/CPCB and Ministry’s Regional office at Bhubaneswar.

In plant control measures for checking fugitive emission from all vulnerable sources will be provided and monitoring of fugitive dust in work zone will be carried out regularly as per CPCB guidelines after commissioning of steel plant and reports will be submitted to Chhattisgarh Environment Conservation Board, Raipur and MoEFCC, Regional Office (WC Zone) Nagpur.

6. 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.

Gaseous emission levels including secondary fugitive emissions from Blast Furnace and Sinter Plant will be controlled well within the prescribed permissible limits.
7. Vehicular pollution due to transportation of raw material and finished product shall be controlled and efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agriculture land. Proper arrangement shall also be made to control dust emission during loading and unloading of the raw material and finished product. All the raw materials including fly ash shall be transported in the closed containers only and shall not be overladen. Vehicular emission shall be regularly monitored.

_Vehicular pollution control measures will be made to reduce effect on surrounding environment and vehicular emission will be regularly monitored and report will be submitted to CECB and MoEFCC, Regional Office (WC Zone), Nagpur after commissioning of steel plant._

8. Total water requirement from Sabri and Indravati River shall not exceed 3,747 m/hr as per the MOU signed with Water Resources Department, Government of Chhattisgarh on dated 11th June 2009. No ground water shall be used. Closed circuit system shall be adopted. Cooling tower blow down water shall be used in gas cleaning plant of blast furnace and then reused for slag granulation/slag cooling. Blow down water from BOF- re-circulation system shall be reused in SMS slag yard. Neutralizing pit shall be provided to soft and DM water plant. Settling tank fitted with oil & grease traps shall be used for treatment of effluent from thin slab caster and hot strip mill. Individual shop-wise wastewater treatment facilities shall be provided. All the effluent shall be treated in effluent treatment plant (ETP) and treated wastewater including cooling tower blow down shall be recycled and reused for ash handling, dust suppression and green belt development and various other project related activities. No wastewater shall be discharged outside the premises and ‘Zero’ effluent discharge shall be ensured. Domestic effluents shall be treated in sewage treatment plant and sewage sludge shall be used as manure for green belt development.

_After completion of all the construction activities condition laid shall be complied by the Project and efforts for ‘Zero’ discharge will be implemented._

9. The wastewater from coke oven and by-product recovery plant containing ammonia, cyanides, thio-cyanates, phenols, oil & grease shall be treated in BOD plant and reused for quenching of hot coke. Continuous monitoring of Total Organic compounds (TOC) shall be done at the outlet of ETP (BOD plant).

_Will be complied and continuous monitoring of TOC will be done at the outlet of ETP (BOD plant) after commissioning of the steel plant._

10. The water consumption shall not exceed 16 m3/Ton of steel as per prescribed standard.

_After commissioning of the steel plant, water consumption shall be maintained well within the prescribed standard._
11. Ground water monitoring around the solid waste disposal site/secured landfill (SLF) shall be carried out regularly and report will be regularly submitted to the Ministry’s Regional Office at Bhopal, CPCB and CECB.

**Ground water monitoring around the solid waste disposal site/secured landfill (SLF) will be carried out regularly and report will be regularly submitted to the Ministry’s Regional Office (WC Zone) Nagpur, CPCB and CECB after commissioning of steel plant.**

12. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. BF & BOF sludge, BF flue dust, BOF scale, mill scrap, lime dust, dolo dust shall be used in sinter plant. BOF slag shall be reused in manufacturing cement or in sinter plant. Skull/scrap and mill scrap shall be reused in BOF plant. Cinder shall be used in road construction. Tar sludge from coke oven decanter along with BOD sludge shall be sent to secured land fill. All the other solid wastes including broken refractory mass shall be properly disposed off in environment-friendly manner. Oily waste, spent lubricants and lead acid batteries shall be provided to authorized recyclers/re-processors.

**After commissioning of the steel plant, the condition shall be complied.**

13. Time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal to the Ministry’s Regional Office at Bhopal.

**After commissioning of plant time bound action plan will be submitted to reduce solid waste, its proper utilization and disposal to the Ministry’s Regional Office (WC Zone) Nagpur.**

14. 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.

**Will be complied and regular report on solid/hazardous waste will be submitted to Ministry Regional office (WC Zone) Nagpur, CECB and CPCB after commissioning of steel plant.**

15. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003. All the fly ash shall be provided to cement and brick manufacturers for further utilization and ‘Memorandum of Understanding’ shall be submitted to the Ministry’s Regional Office at Bhopal.

**All the fly ash will be provided to cement and brick manufacturers for further utilization and after signing of ‘Memorandum of Understanding’ the same will be submitted to the Ministry’s Regional Office (WC Zone) Nagpur and CECB, Raipur.**
16. 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.

During the Monsoon periods 2016, 1500 Nos. of Plant Saplings were planted by Employees, Villagers and School Children. For Industrial Plantation (2 Lakh Plant Saplings) in and around Plant Premises an agreement was signed with Chhattisgarh Rajay Van Vikas Nigam Limited, Jagdalpur on 05.10.2016.

17. Recommendations of the State Forest Department shall be obtained regarding likely impact of the proposed steel plant on the surrounding reserve forest viz. Kanger RF, Ultnar RF, Kakadpasar RF, Chalanguda RF and Metawada RF and implemented.

Recommendation of State Forest Department is being obtained after which suitable measures will be implemented.

18. Rehabilitation and resettlement shall be implemented as per the policy of the Govt. of Chhattisgarh. Compensation paid in any case shall not be less than the norms prescribed under the National Resettlement and Rehabilitation Policy, 2007.

Being complied with. Rehabilitation and resettlement is being implemented as per the policy of the Govt. of Chhattisgarh.

19. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 27th February, 2009 shall be satisfactorily implemented.

Is being implemented. All the commitments made to the public during the Public Hearing/Public Consultation meeting already being implemented.

20. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Sector shall be implemented.

Recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Sector shall be implemented.

21. 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.

Is being implemented and all the Contractors working in the premises are taking care of.
B) GENERAL CONDITION:

1. The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the state Government.

   *Stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the state Government shall be strictly adhered.*

2. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.

   *Agreed. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.*

3. The gaseous emissions from various process units shall conform to the load/mass based standards notified by the 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.

   *On line Ambient Air Quality Monitoring and Continuous Stack Monitoring facilities will be installed with inter looking facilities in Coke Ovens, by products plant, SMS, Blast Furnace, Thin Slab Caster and Hot Strip Mill, Sinter Plant etc.*

4. 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 point, blast furnace stock house and other enclosed raw material handling areas. Centralized de-dusting system i.e. collection of fugitive emission 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 emission shall be regularly monitored and records maintained.

   *In plant, control measures for checking fugitive emission from all vulnerable sources shall be provided and monitoring of fugitive dust in work zone will be carried out regularly after commissioning of plant as per CPCB guidelines and reports will be submitted to Chhattisgarh Environment Conservation Board, Raipur and MoEFCC, Regional Office (WC Zone) Nagpur.*
5. 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 NOX 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.

*Data on ambient air quality and stack emission will be submitted to MoEFCC, Regional Office (WC Zone) Nagpur, CECB and CPCB along with six monthly progress report after starting of steel plant.*

6. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR (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.

*Agreed. After treatment wastewater shall be utilized for plantation purpose.*

7. 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).

*Noise control measures on all sources of noise generation in plant area will be installed to keep the noise level well within the permissible limits.*

8. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

*Occupational Health Surveillance of the workers shall be done on regular basis after completion of construction activities of plant.*

9. 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.

*Rain water harvest structures shall be developed after completion of construction activities and running of plant.*

10. 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 programs, educational programs, drinking water supply and health care etc.

*Project shall comply with all the environmental protection measures and safeguard recommended in EIA/EMP report. Under CSR Policy, Corporation is undertaking various welfare activities for last 10 years.*
11. As proposed Rs. 916.00 Crores and Rs. 219.00 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 should not be diverted for any other purpose.

**Implementation schedule for implementing all the conditions stipulated will be submitted to Regional office (WC Zone) of Ministry at Nagpur after commissioning of the plant.**

12. 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/representation, 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.

**Being Complied with and all the necessary action already being taken care of.**

13. 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, the respective Zonal Office of CPCB and the CECB. The criteria pollutant levels namely; SPM, RSPM, SO2, NOX (ambient levels as well as stack emission) 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.

**Status of compliance will be uploaded on our site and pollutants level will be monitored after commissioning of the plant and will be displayed at the main gate of company for public domain.**

14. 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 at Bhubaneswar, the respective Zonal Office of CPCB and the CECB. The Regional Office of this Ministry at Bhopal/CPCB/CECB shall monitor the stipulated conditions.

**Being Complied with. Project is regularly submitting Six Monthly Compliance Reports to all the concerned Statutory Bodies.**
15. 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.

*Being Complied with. Project already informed public that the project has been accorded environmental clearance by the Ministry and published it in local newspapers. Later, copy of the same was submitted in ministry for information.*

16. 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.

a) **TEFR of MTPA Integrated Steel Plant, Nagarnar was approved by Board of Directors on 07.01.2010.**

b) **Date of commencing land development work – June 2011.**

i. **Site enabling works like site leveling, plant entrance road, plant internal road network and temporary drainage system, plant boundary wall and watch towers, construction power, construction water supply were started in June 2011.**

ii. **Construction at site of major packages like Blast Furnace, SMS, Sinter Plant, Coke Oven, Raw Material Handling System, Lime and Dolo Plant, Power & Blowing station Turbo blower & Compressed air station has commenced.**
PHOTOGRAPHS
COKE OVEN COMPLEX - Battery 1 Refractory

BY PRODUCT PLANT
SINTER PLANT

BLAST FURNACE
STEEL MELTING SHOP - Convertor

TSC-TF-HSM
OXYGEN PLANT

POWER & BLOWING STATION

Boilers