

# **Environmental Compliance Report**

(Period: April, 2021 to September, 2021)

**Refer MoEF&CC File No. J-11011/662/2008-IA II (I)  
dated 24<sup>th</sup> December, 2009**

for  
**STEEL PLANT**

at  
Ratanpur-Kandra Village, Gamharia Block,  
District Saraikela-Kharsawan, Jharkhand

Project Proponent  
**M/s Nilachal Iron & Power Ltd.**  
5, Bentick Street, Kolkata - 700001, West Bengal

**Six monthly compliance of conditions stipulated in the Environmental Clearance of  
Nilachal Iron & Power Limited, Ratanpur-Kandra Village, Gamharia Block, Dist –  
Sareikala Kharswan, Jharkhand  
F.No. J-11011/662/2008-IA II (I) dated 24.12.2009**

**Period from April- 2021 to Sep- 2021**

Sl. No.	Conditions	Compliance Status
<b>Specific Conditions</b>		
i	Compliance to all specific and general conditions stipulated for the existing sponge iron plant by central/state govt. shall be ensured and regular reports submitted to the Ministry and its Regional office at Bhubaneswar	Will be complied
ii	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices like Electrostatic precipitator (ESP), gas cleaning plant, multi cyclone, wet scrubber, bag filters etc. shall be provided to keep the emission levels below 50 Mg/Nm <sup>3</sup> . 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 limit.	APCS such as ESP and bag filters have been provided in various units of the plant to reduce dispersion of gaseous emissions into the atmosphere. Similarly, regular maintenance of all the air pollution control systems is also being done periodically for their efficient operation at all the times.  Copy of the latest monitoring reports is enclosed.
iii	Electrostatic precipitator (ESP) shall be provided to DRI kilns, pellet plant, CFBC boiler and waste heat recovery (WHRB) to control gaseous emissions within 50 mg/Nm <sup>3</sup> . Blast furnace shall be provided with cyclone / multi-cyclone followed by wet scrubber type Gas cleaning plant (GCP) to control dust pollution. Bag filters shall be provided to stock house to control dust emissions. Fume extraction system with bag filters to steel melting shop (SMS), electric arc furnace (EAF), ladle refining furnace (LRF), ferro alloy plant and to rolling mill. Data on ambient air quality, stack emissions and fugitive emissions shall regularly submitted to the Ministry's regional office at Bhubaneswar, Jharkhand Pollution Control Board (JPCB) and Central Pollution Control Board (CPCB) once in six months.	As reported earlier, ESP has been provided to control emissions from the kiln to keep emission level below 50 mg/Nm <sup>3</sup> and regularly the carbon present in the exhaust gas is being monitored to know its design limit. It has been found that carbon percentage always remains below 4 and fulfills the design criterion. This indicates the efficient functioning of ESP in the system. Similarly, ESP shall also be provided in WHRB. Data on ambient air quality, stack emissions & fugitive emissions are being submitted to all concerned. Copy enclosed.
iv	Hot gases from DRI kiln shall be passed through dust settling chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in waste heat recovery boiler (WHRB). The gas then shall be cleaned	Hot gases from DRI kiln is passing through DSC to remove coarse solids and ABC to burn CO efficiently and then to ESP.

	in ESP before leaving out into the atmosphere through ID fan and stack.	When WHRB will be installed, hot gases from ABC will pass through WHRB and then to the stack through ESP.
v.	Proper and full utilization of DRI and blast furnace gases in power plant using heat recovery system generators shall be ensured and no flue gases shall be discharged into the air. The national ambient air quality standards issued by the Ministry vide G. S. R. No. 826(E) dated 16 <sup>th</sup> November, 2009, shall be followed.	It is being complied
vi	In plant control measures for checking fugitive emissions from all the vulnerable sources. Bag filters shall be provided at intermediate bins/separation buildings. Product storage silos, iron ore circuit, cooler discharge and raw material handling section, stock house, grinding and material transfer and junction points etc. Dust extraction system with bag filters shall be provided to crusher house, screens, transferring chutes, junction towers, feed points below reclaim hoppers, pellet plant and blast furnace stock house. Dust suppression system with dry fog type and water sprinkler shall be provided at coal handling plant	Control measures have been taken up for checking fugitive emissions. Bag filters have been provided at intermediate bins/separation buildings, product storage silos, coal circuit, cooler discharge & raw materials handling section. Dust extraction system with bag filters are provided to crusher house, screens, transferring chutes, junction towers, feed points below reclaim hoppers, dust suppression system with dry fog type and water sprinklers are being provided at coal handling and crushing area to control fugitive dust emissions.
vii	'Zero effluent discharge shall be strictly followed and no waste water shall be discharged outside the premises.	Complied
viii	Gaseous emission levels including secondary fugitive emissions from all the sources 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. New standards issued by the ministry for the sponge iron plant in May, 2008 shall be followed.	As reported earlier, ESP has been provided to control emissions from the kiln to keep emission level below 50 mg/nm <sup>3</sup> and regularly the carbon present in the exhaust gas is being monitored to know its design limit. It has been found that carbon percentage always remains below 4 and fulfills the design criterion. This indicates the efficient functioning of ESP in the system. Similarly, ESP shall also be provided in WHRB.
ix	Vehicular pollution due to transportation of raw materials and finished goods shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of raw materials and finished products.	Roads within the plant premises is been converted to concrete roads and asphaltic road in phases. Sprinklers & water tankers are used to spray water to control of fugitive emission

x	Total water requirement from Subarnarekha River shall not exceed 19,200 m <sup>3</sup> /day and prior permission for the drawl of 19,200 m <sup>3</sup> /day water from the concerned department shall be taken to settling tank and used for dust suppression. The waste water from Gas Cleaning plant (GCP) of blast furnace shall be treated in an effluent treatment plant (ETP) and clarified water reused in GCP itself. The regeneration waste water from the demineralization (DM) plant shall be neutralized in a neutralization pit and used for dust suppression. The effluent from captive power plant shall be taken to ash pond and reused for ash handling and slag granulation. The waste water generated from SMS and rolling mill shall be taken to scale pit and reused for cooling and slag granulation. The waste water from coal washery after recovery of fines shall be re-circulated.	Total water requirement from Subarnarekha River shall not exceed 19,200m <sup>3</sup> /day and prior permission for the drawl of 19,200 m <sup>3</sup> /day water from the concerned department shall be obtained. Presently waste water from DRI kilns are recycled & reused in the in-plant activities. However, all conditions will be complied with regard to waste water treatment of other units.
xi	Efforts shall be made to make use of rain water harvested. 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.	Rain Water Harvesting facility already Implemented.
xii	‘Zero’ effluent discharge shall be strictly followed and no waste water shall be discharged outside the premises. Domestic waste water shall be met from other sources	Presently no waste water is discharged outside the premises. However, there is no STP. The waste water is recycled & presently used for in plant activities and suppression of fugitive emission.
xiii	The water consumption shall not exceed 16 m <sup>3</sup> /Ton of steel as per prescribed standard	It is being complied with.
xiv	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated waste water shall meet the norms prescribed by the State Pollution control board or described under the E(P) Act whichever are more stringent Lachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry’s Regional office at Bhubaneswar, Jharkhand SPCB and CPCB.	Regular monitoring of influent & effluent surface & sub-surface water will be carried out. However, monitoring data of process of effluent water quality is annexed herewith.
xv	Char from DRI Plant, coal rejects and fines from coal washery shall be recycled to sinter plant to produce sinter.	Presently char from DRI plant is stored at a safe place.
xvi	All the char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be disposed off anywhere else AFBC boiler shall be installed simultaneously along with the DRI plant to ensure the full utilization of char from the beginning. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. SMS slag and kiln accretions shall be properly disposed off in environment friendly manner. Dust and sludge from blast furnace, mill scales from rolling mill and casting machines and dust from DRI plant. SMS, ferro alloy plant shall be reused in pellet plant. Oily waste and spent oil shall be provided to authorized recyclers/reprocessors.	Shall be complied with once projects are commissioned.

xvii	All the slag (ferro alloy, blast furnace slag etc.) shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Toxic slag shall be disposed off in secured land fill as per CPCB guidelines. Otherwise, hazardous substances shall be recovered from the slag and output waste can be disposed off in secured land fill as per CPCB guidelines	Shall be complied once the project starts.
xviii	Slag production from Ferro-Manganese (Fe-Mn) production shall be used in manufacture of Silico-Manganese (Si-Mn)	Shall be complied once the project starts.
xix	Proper utilization of fly ash shall be ensured as per Fly ash notification, 1999 and subsequent amendment in 2003. All the fly ash and blast furnace slag 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 Bhubaneswar within 3 months of issue of this letter.	As per fly ash notification 1999 and subsequent amendment in 2003, MoU has been signed with ACC and other local cement industry. There is no Power Plant hence no Generation of Fly Ash.
xx	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 Bhubaneswar, Jharkhand SPCB and CPCB	Shall be complied
xxi	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal	We follow recycle and reuse method to minimize disposal.
xxii	A disaster management plan shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, Jharkhand SPCB and CPCB within 3 months of issue of this letter.	Disaster management plan available and submitted.
xxiii	As proposed, green belt shall be developed in 58 acres (34%) of the total project area of 176.33 acres within and around the plant premises as per the CPCB guidelines in consultation with DFO.	We have Green Belt in 24 acre (35%) out of 67 acres of acquired land area.
xxiv	Prior permission from the state forest department shall be taken regarding likely impact of the expansion of the proposed steel plant on the reserve forests. Measures shall be taken to prevent impact of particulate matters emissions / fugitive emissions, if any from the proposed plant on the surrounding reserve forests viz, Pendrabera PF, Kanki PF, Basrapahar PF, Palubera PF, Giddibera PF, Muskikudar PF, Tetuldanga PF, Poradih PF, Dalma PF, Brijnathpur PF, Baslikoacha PF and Dalma Reserve Forest located within 10 km. radius of the project. Further, conservation plan for the conservation of wild fauna in consultation with the state forest department shall be prepared and implemented.	Prior permission of the state forest department will be taken.
xxv	All the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for the steel plants shall be implemented.	Shall be complied with.
xxvi	All the commitments made to the public during public hearing / public consultation meeting held on 27 <sup>th</sup> August,	Shall be complied with

	2009 shall be satisfactorily implemented by allocating separate budget to implemented the same.	
xxvii	Rehabilitation and Resettlement Plan for the project affected population including tribals, if any, shall be implemented as per the policy of state govt. of Jharkhand compensation paid in any case shall not be less than the prescribed norms under the National Rehabilitation and Resettlement Policy, 2007.	Compensation Paid AND Employment also given
xxviii	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.	Will be complied

### General Conditions

i.	The project authorities must strictly adhere to the stipulations made by the Jharkhand Pollution Control Board (JPCB) and State Government.	complied
ii.	No further expansion or modification in the plant should be carried out without prior approval of the Ministry of Environment and forests.	complied
iii.	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19 <sup>th</sup> 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.	complied
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 PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the Jharkhand PCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the Jharkhand PCB/CPCB once in six months.	complied
v.	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	complied
vi.	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).	complied
vii.	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	complied

viii.	The company shall develop surface as well as ground water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	complied
ix.	The project proponent shall also comply with all the environment 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.	complied
x.	As proposed, Rs. 135.00 Crores shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures and judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	complied
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.	complied
xii.	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 JSPCB and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall 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 shall be forwarded to the Regional office.	complied
xiii.	A copy of clearance letter shall be sent by proponent Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	complied
xiv.	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 JPCB. The criteria pollutant levels namely; PM10, PM2.5, RSPM, SO2 , NOX (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.	complied

xv.	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 JPCB. The Regional Office of this Ministry at Bangalore / CPCB / JPCB shall monitor the stipulated conditions.	complied
xvi.	The environmental statement for each financial year ending 32st 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 by e-mail.	complied
xvii.	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