COMPLIANCE REPORT

Pig Iron Plant (39,600 TPA) And Hard Coke Plant (33,000 TPA) At Village Mohanpur, District Giridih, Jharkhand By M/S Swati Sponge & Iron Pvt. Ltd. Compliance Of Stipulated Environmental Conditions/ Safeguards In The Environmental Clearance Vide File No. F. No. J11011/866 /2007IA II (I) Dated:- 18/06/2010. Copy of EC Letter Is Enclosed As Annexure-I

S.No	CONDITION	COMLIANCE/STATUS
A.	**SPECIFIC CONDITIONS**	
i)	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 shall be provided.	We have taken various measures for control and reduction of RSPM/particulate matter emissions from the plant. Regular water sprinkling is carried out on internal roads and dust-prone areas, and adequate pollution control measures are provided at the relevant emission sources. The details of the pollution control measures and photographs of the facilities are enclosed as **Annexure-II**. **Online ambient air quality monitoring and continuous emission monitoring system (CEMS)** installed at the applicable locations. CEMS reports are enclosed as **Annexure-III**.
ii)	Stack monitoring facilities of all the major stacks and adequate air pollution systems viz. dust catcher or cyclones. Multi stage scrubber, bag filters etc. to control particulate emissions to 100mg/Nm3 and 50mg/Nm3 from coke oven and pig iron plant respectively shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standard notified under E (P) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office at the Bhubaneswar, Central Pollution Control Board (CPCB) and Jharkhand Pollution Control Board .	Multi-stage scrubbers and bag filters have been provided at the major emission sources of the Pig Iron Plant and Hard Coke Plant for effective control of particulate emissions. Continuous efforts are being made to maintain the pollution control systems in efficient operating condition and to control particulate emissions within the stipulated limits of 100 mg/Nm³ for the Coke Oven Plant and 50 mg/Nm³ for the Pig Iron Plant. **Online ambient air quality monitoring and continuous emission monitoring system (CEMS)** installed at the applicable locations. CEMS reports are enclosed as **Annexure-III**.
iii)	Multi stage scrubber shall be installed to control gaseous and dust emission from the coke oven stack. Dry quenching shall be adopted and measures shall be taken to	A **multi-stage scrubber** has been provided at the Coke Oven Plant for effective control of gaseous and particulate emissions from the coke oven stack. The details and photographs

	prevent leakages from the coke oven plant.	of the installed pollution control system are enclosed as **Annexure-II**. **Dry quenching system (CDQ)** has been adopted for coke cooling to minimize emissions and conserve energy. Necessary measures are being taken to prevent leakages from the Coke Oven Plant, including regular inspection and maintenance of coke oven batteries, doors, lids, valves, pipelines and associated equipment.
iv)	The Waste heat from the MBF gas and hard coke Unit shall be utilized for drying and preheating of raw material.	The waste heat generated from the **MBF gas and Hard Coke Unit** is utilized for **drying and preheating of raw materials**, thereby improving thermal efficiency and reducing fuel consumption. The waste heat utilization arrangement and associated facilities are maintained in operational condition.
v)	The prescribed emission standards for coke oven Plants, as notified vide notification no. GSR 46(E) dated 3rd February 2006 and subsequently amended shall be complied with.	The prescribed emission standards for the **Coke Oven Plant**, as notified vide **Notification No. GSR 46(E) dated 03.02.2006** and subsequent amendments, are being complied with. Adequate air pollution control measures have been provided and regular stack emission monitoring is carried out to ensure that the emissions remain within the prescribed limits.
vi)	In-Plant control measures like bag filter, de-dusting and dust suppression system shall be Provide to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points. Coal handling plant and coke sorting plant of coke oven Plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading and storage of raw materials etc.	Adequate **in-plant fugitive emission control measures** have been provided at vulnerable sources to control dust emissions. **Bag filters, dust extraction/de-dusting and water sprinkling systems** have been provided at vulnerable sources, transfer points, CHP and Coke Sorting Plant to control fugitive emissions. **All conveyors are covered with GI sheets** to prevent fugitive emissions. Water sprinkling is carried out during screening, loading, unloading and storage of raw materials. Photographs of the installed **bag filters, dust extraction/de-dusting systems and water sprinkling arrangements** are enclosed as **Annexure-II.** Fugitive emission monitoring report is

		enclosed as **Annexure-IV.**
vii)	Secondary fugitive emissions shall be controlled within the prescribed limits. Regularly monitored and records maintained Guidelines/ Code of Practice issued by the CPCB in this regard shall be followed.	Secondary fugitive emissions are controlled through adequate dust suppression and extraction measures and are maintained within the prescribed limits. Regular monitoring is carried out and records are maintained. The applicable **CPCB Guidelines/Code of Practice** are being followed.
viii)	Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product. Efforts shall also be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash shall be transported in the closed containers. Only and shall not be overloaded. Vehicular emissions shall be regularly monitored and records kept.	All raw materials, including coal, are transported in **covered trucks** and vehicles are not overloaded. **Fly ash is not used in the process.** Water sprinkling is undertaken during loading and unloading activities to control dust emissions. **PUC certificates of vehicles, including trucks entering the premises, are regularly checked and maintained** to ensure compliance with applicable vehicular emission standards.
ix)	Total requirement of the water from ground shall not exceed 170 m3/day. All the treated waste water shall be recycled for dust suppression and green belt development. Domestic wastewater shall be treated in septic tank followed by soak pit used for green belt development. Zero effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.	Water is maintained in a **closed-circuit system**, and only makeup water required to compensate for losses and evaporation is used, with total groundwater requirement **not exceeding 170 m³/day**. **Zero Liquid Discharge (ZLD)** is being strictly followed, and no wastewater is discharged outside the premises. Domestic wastewater is being treated, while treated wastewater from other sources is reused for **dust suppression and greenbelt/horticulture development**. Copy of permission is enclosed as **Annexure-V.**
x)	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 meet from other sources.	**Rainwater Harvesting (RWH) plan** has been developed and implemented for the plant, and an **RWH collection pond** has been provided. Efforts are being made to utilize the harvested rainwater to the maximum extent possible, thereby reducing dependence on other water

		sources.
xi)	Waste from the hard coke unit, shall be provided to the briquette manufacturing units. Coal and coke fines shall be recycled and reused in the process. All the blast Furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. The bag filter dust shall be used for land filling. The waste oil shall be properly disposed off as per the Hazardous Waste (Management, Handling, Handling and Trabsboundry Movement) Rules,2008.	Waste from the Hard Coke Unit provided to **briquette manufacturing units**, while coal and coke fines is being **recycled and reused in the process**. All Blast Furnace (BF) slag **granulated and provided to cement manufacturers** for further utilization. **Bag filter dust utilized for land filling** as permitted. Applicable provisions of the relevant Acts and Rules are being complied with. Application for **Hazardous Waste Authorization** under the prevailing Rules will be submitted, and waste oil disposed of through **authorized agencies/recyclers** as per applicable regulations.
xii)	As proposed, green belt shall be developed in 33% of plant area within and around the project site to mitigate the impact of fugitive emissions as per the CPCB guidelines in consultation with local DFO.	Greenbelt is being developed within and around the project premises with the objective of covering **33% of the total plant area**, as per **CPCB guidelines** and in consultation with the local DFO.
xiii)	The recommendations made in the charter on Corporate Responsibility for Environment Protection (CREP) of the coke Oven Plants shall be implemented.	Necessary facilities and equipment for implementation of the CREP recommendations for the Coke Oven and Steel Plant have been provided. The applicable provisions and recommendations of CREP are being complied
Xiv)	All the commitments made to the public during the Public Hearing/ Public Consultation meeting held on 15th June 2009 shall be satisfactory implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.	The commitments made during the **Public Hearing/Public Consultation held on 15.06.2009** were satisfactorily implemented. A separate budget has been allocated for implementation of the committed activities. A **Village Development Committee (VDC)** has been constituted, and regular meetings are conducted for identification and implementation of village development activities. Various **CSR/community development activities**, including road construction/improvement, provision of drinking water dispensers and medical camps, have been undertaken. Item-wise expenditure done on CSR are enclosed as **Annexure-VI**.

Xv)	At least 5% the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.	Item-wise expenditure done on CSR are enclosed as **Annexure-VI**.
Xvi)	Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar. SPCB and CPCB within 3 months of issue of environment clearance letter.	**Risk and Disaster Management Plan (RDMP)** along with necessary mitigation measures has been prepared and implemented for the project. The plan covers identification of potential hazards, emergency preparedness, mitigation measures and response procedures. A copy of the **Risk and Disaster Management Plan** is enclosed as **Annexure-VII**.
Xvi)	The company shall provide housing for construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets. Mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Necessary **housing and basic facilities** were provided to construction labor within the project site, including **safe drinking water, cooking fuel, sanitation/mobile toilets, medical facilities and other essential amenities**. The temporary facilities were maintained during the construction period and removed after completion of the project.
B.	**GENERAL CONDITIONS**	
i)	The project authorities must strictly adhere to the stipulations made by the Jharkhand State Pollution Control Board and the state Government.	The project authorities are **strictly complying with the stipulations and conditions prescribed by the Jharkhand State Pollution Control Board (JSPCB) and the State Government**. The project has obtained **Consent to Establish (CTE)** and **Consent to Operate (CTO)** from JSPCB, and the stipulated conditions are being complied with. Copies of the **CTE and CTO** are enclosed as **Annexure-VIII**.
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment	No further expansion or modifications in the plant will be carried out without prior approval of the Ministry of Environment and forests,

	and Forests.	New Delhi and JSPCB.
iii)	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed form 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.	Gaseous emissions from the various process units are being maintained within the **applicable prescribed emission standards**. Regular stack emission monitoring is carried out and the monitoring results are maintained. The applicable conditions stipulated by **JSPCB through CTE/CTO** are also being complied with.
iv)	At least four ambient air quality monitoring stations should be established in the downward directions as well as where maximum ground level concentration of PM10, SO2 and NOX 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.	**Ambient air quality monitoring stations** have been established at suitable locations, including downwind directions and locations representing maximum anticipated ground-level concentrations of **PM_{10}, SO_2 and NOx**, in consultation with the **JSPCB**. Ambient air quality and stack emission monitoring is carried out regularly, and the monitoring reports are enclosed as **Annexure-IX**.
V)	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.	Industrial wastewater is properly **collected and treated** to conform to the applicable prescribed standards under **GSR 422(E) dated 19.05.1993 and subsequent amendments**. The treated wastewater is **utilized for plantation/greenbelt development** within the project premises.
Vi)	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) 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. 75dBA (daytime) and 70 dBA (nighttime).	Adequate **noise control measures**, including acoustic enclosures, hoods and silencers, have been provided at major noise-generating sources to maintain noise levels within the prescribed limits. Regular **ambient noise monitoring** is carried out, and the noise levels in and around the plant area are maintained within the applicable standards, including **75 dB(A) during daytime and 70 dB(A) during nighttime**. Relevant ambient noise monitoring reports are enclosed as **Annexure-IX**.
Vii)	Occupational health surveillance of the	Regular **occupational health surveillance and**

	workers should be done on a regular basis and records maintained as per the Factories Act.	**medical examinations** of workers are being carried out as per applicable provisions of the **Factories Act**. Records of health check-ups and medical examinations are maintained and updated regularly. Relevant occupational health records are enclosed as **Annexure-X**.
Viii)	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.	A **Rainwater Harvesting (RWH) Plan** has been developed and implemented at the plant, and an **RWH collection structure/pond** has been provided for harvesting rainwater. A **rooftop RWH system** is also being developed and implemented at the site. Efforts are being made to utilize the harvested rainwater to the maximum extent during the lean season and for **groundwater recharge**.
ix)	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.	The environmental protection measures and safeguards recommended in the **EIA/EMP report are being strictly followed and implemented**. Socio-economic development activities in the surrounding villages, including **community development programmes, educational programmes, drinking water supply and healthcare facilities**, have been initiated and are being implemented on a regular basis.
X)	Requisite amount 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 Forest 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 Bhubaneswar. The funds so provide shall not be diverted for any other purpose.	The requisite **capital cost for pollution control devices (PCD) of the Pig Iron Unit is considered as an integral part of the MBF**, and adequate **annual recurring expenditure** has been earmarked for implementation of the EMP and environmental safeguards. High-efficiency **bag filters, scrubbers and water sprinkling systems**, along with appropriate stack heights for effective dispersion, have been provided. Water is maintained in a **closed-loop system**, and wastewater is reused to the extent possible. The funds earmarked for environmental protection measures was **not diverted for any other purpose**.
Xi)	A copy of clearance letter shall be sent by	Copies of the Environmental Clearance letter

	the proponent to concerned Panchayat, Zila Parishad/ Muncipal 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.	have been submitted to the concerned **local bodies/Panchayat**. The Environmental Clearance and relevant information displayed on the **company website** once the website is operational.
Xii)	The project proponent shall upload the status of compliance of the stipulate environment clearance conditions, including results of monitored data on their website and shall update same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bhubaneswar the respective Zonal Office of CPCB and the CECB. The criteria pollutant levels namely, PM10, SO2, NOx (ambient levels as wells 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 .	The status of compliance with the stipulated Environmental Clearance conditions and the relevant **monitoring data** are being maintained. The prescribed monitoring of **PM_{10}, SO_2 and NOx**, including ambient air quality and stack emissions, is being carried out, and **AAQ monitoring reports are submitted to the concerned authorities** as required. The compliance status and monitoring information uploaded on the **company website**. The relevant information will also be **displayed at a convenient location near the main gate** for public information.
Xiii)	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 MOEF, The respective Zonal office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/ CPCB/ SPCB shall monitor the stipulatd conditions.	Six-monthly compliance reports along with the results of monitored data are being submitted.
Xiv)	The environmental statement for each financial year ending 31st March in Form –V as is mandated to submit by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules. 1986 as	The **Environmental Statement in Form-V** for each financial year ending **31st March** is being prepared and submitted to the concerned **State Pollution Control Board** as per the applicable provisions of the **Environment (Protection) Rules, 1986 and subsequent**

	amended subsequently, shall 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 at Bhubaneswar by e-mail.	**amendments**.
XV)	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 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 news papers 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 Bhubaneswar.	The required information regarding grant of **Environmental Clearance** to the project and availability of the clearance letter with the **SPCB** and on the **MoEFCC website** was published in **Prabhat Khabar dated 10.07.2010**. The newspaper publication was made for public information. Acknowledgement Copy of Same is enclosed as **Annexure-XI.**
Xvi)	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.	The required information regarding the **date of financial closure, final approval of the project, and commencement of land development work** has been communicated to the concerned **Regional Office of MoEFCC and the Ministry**, as stipulated.

OPLUS STEEL & POWER PVT. LTD.
Sanjay Sarayan
Authorised Signatory