

Ref: - SIPL/SMC/MoEF/April 2019-Sept. 2019

Date: 17.01.2020

To,
The Dy. Director General of Forests (Central)
Eastern Regional Office,
Ministry of Environment Forests & Climate Change,
A/3, Chandrashekharpur, Bhubaneswar – 751023 (Odisha)

SUB: Six Monthly (April 2019 to Sept. 2019) Compliance to Environmental Clearance conditions vide MoEF F. No. J-11011/201/2013-IA II (I) Dated: 21.12.2016 by M/s Shakambhari Isapat & Power Limited, Vill-Madandih, PO-Bartoria. Dist- Purulia (WB)

Dear Sir,

With reference to above, we are submitting herewith the six monthly compliance report (period April 2019 to Sept. 2019) of M/s M/s Shakambhari Isapat & Power Limited, Vill-Madandih, PO-Bartoria. Dist- Purulia (WB) as per the directives of Ministry of Environment Forest and Climate Change, Government of India. Point wise compliance status report, latest environment monitoring data along with soft copy in CD is enclosed for your kind perusal. Hope you will find the same in order.

Kindly acknowledge our submission.

Thanking You.

Yours faithfully,

For **Shakambhari Isapat & Power Limited**

Authorized Signatory

Encl: as above



Copy to:

The Sr. Environmental Engineer, West Bengal Pollution Control Board, Asansol Regional Office ,
ADDA Commercial Market (2nd Floor), Oppo. Asansol Fire Station, GT Road, Asansol-713301
Dist-Paschim Burdwan (WB).



SIX MONTHLY COMPLIANCE REPORT

April, 2019 - September, 2019



Prepared by:

M/s Shakambhari Ispat and Power Pvt Limited

Village-Madandih, P.O. – Bartoria, P.S-Neturia,

Dist. – Purulia, Pin-723121, West Bengal



Six Monthly Compliance Report April, 2019 – Sept., 2019

SHAKAMBHARI ISPAT & POWER LIMITED

COMPLIANCE STATUS ON ENVIRONMENTAL CLEARANCE

Vide MoEF F. No. : F. No. J-11011/201/2013-IA II (I) Dated: 21.12.2016

COMPLIANCE PERIOD:

APRIL-2019 TO SEPTEMBER-2019

PROJECT LOCATION:

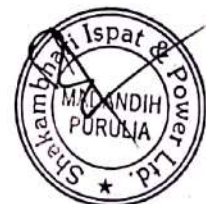
Village-Pavatpur, Radhamadhibpur, Madandih P.O. – Bortoria,
Dist. – Purulia, West Bengal



Six Monthly EC Compliance Report

Name of the Project	:	Shakambhari Ispat & Power Limited Village-Madandih, PO-Bartoria Dist. –Purulia (WB)
Environmental Clearance F. No.	:	J-11011/201/2013-IA II (I) Date: 21.12.2016
Period of Compliance Report	:	April 2019 to September 2019

Sl. No.	CONDITIONS	COMPLIANCE STATUS
SPECIFIC CONDITION:		
i.	The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office	We have installed 24x7 OCEMS connected to CPCB portal to monitor the air emissions. Latest stack monitoring report is attached as Annexure-1 .
ii.	No dumping is permitted in the abandoned coal 2B and 2C in nearby Parbelia Village. The iron ore trailing and excess ash should be stored within the plant premises for the period of 2 years for which land is available. The status of storage of above material shall be periodically reviewed by the regional office for land adequacy and environmental management. For future storage of iron ore tailing and excess ash, beyond the period of 2 years, the proponent will submit the land acquisition details to the Ministry.	No dumping being done in the abandoned coal 2B and 2C nearby Parbelia village. Adequate arrangement has been made proper handling of above materials.
iii.	In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided 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 etc. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control the dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.	We have already installed de-dusting systems like bag filters and ESPs for an effective control of dust emissions. Dust extraction system has been provided at the strategic points attached with bag filter units for cooler discharge, intermediate bin, product house etc. Fixed type water sprinklers for dust suppression at raw material handling system along the conveyor, finished product house area, cooler discharge, along with Kiln axis and all other strategic locations. SIPL have deployed movable water tankers for dust suppression on the road and minimizing fugitive emissions. Latest fugitive emissions monitoring report is attached as Annexure-2
iv.	The ETP for Mini Blast Furnace effluent should be designed to meet Cyanide standard as notified by the MoEF & CC.	It will be complied with. No Mini Blast Furnace has been installed so far.



v	No effluent shall be discharged outside the plant premises and 'zero' discharge shall be adopted.	We are adapting reduce, reuse and recycle practice and no effluent being discharged outside the factory premises.
vi	Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm ³ and installing energy efficient technology.	Online Continuous Emission Monitoring System (OCEMS) have been installed at Stacks of DRI and CPP. Air pollution control devices viz. ESPs and bag filters along with dust extraction and suppression system have been installed and efficiently operated to control emission level well within the norms. Third party monitoring by NABL accredited laboratory being conducted periodically to evaluate the emission levels. Latest stack monitoring report in enclosed as Annexure-1
vii	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. The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.	Hot gases from DRI Kiln being passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) for complete burning of CO. The dust content from gas being cleaned in ESP before leaving out into the atmosphere through ID fan and stack.
viii	Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. ETP sludge should be disposed off scientifically.	All possible attempts are made to ensure optimal use of water within the factory premises. We have rain water harvesting pond to harvest the rain water and reduce the water consumption.
ix	All the coal fines, char from DRI plant shall be utilized and no char shall be used for briquette making or disposed off anywhere else. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.	All the coal fines and the char generated from DRI plant being strictly utilized in Captive Power Plant (CPP). Other solid waste like broken refractory etc. being disposed off in environment-friendly manner.
x	All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal	Most of the internal roads in DRI section are concreted and concreting of the roads at CPP is in progress, photographs are enclosed as Annexure-3 We have already purchased automated road



	from the linked coalmines shall be created within the Unit.	sweeping machine and the same is operational Annexure-4 Progressive measures are being taken to develop avenue plantation using indigenous species i. e. Mehagini, Segun, Radhachura, Neem, Bakul, Kadam etc. along the plant periphery as well as inside the plant. Some pics are attached as Annexure-5 Parking area for the trucks carrying raw coal within the unit has been provided.
xi	The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.	It is being followed.
xii	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 shall be followed	It is being followed. Latest Ambient Air Quality Monitoring report is attached as Annexure-6
xiii	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	Utmost priority is given to reduce the air pollution within the plant. Suitable control measures have been undertaken to keep Gaseous emission levels including secondary fugitive emissions within the latest permissible limits. Latest work zone (Fugitive Emission) monitoring report is enclosed as Annexure-2
xiv	Regular monitoring of influent and effluent surface, sub- surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more Stringent.	Regular monitoring being done for effluent, surface and ground water and no effluent discharged outside the factory premises. Latest monitoring report is enclosed as Annexure-7
xv	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, SPCB and CPCB.	Proper handling, storage, utilization and disposal of solid waste being done. Analysis of toxic metal content in the solid waste being periodically carried out by approved agency. The monitoring report is enclosed as Annexure- 8
xvi	A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.	The Dolochar generated from DRI section is being strictly utilized for power generation at our Captive Power Plant (CPP)



		<p>Fly ash is being utilized in fly ash brick manufacturing. Accordingly company has made agreement for the same. Copy of the agreement is enclosed as Annexure-9</p> <p>Induction Furnace slag and Bottom Ash are being used for land filling and road construction work.</p>
xvii	Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendments. 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.	All the fly ash generated within the plant is provided to brick manufacturers for further utilization. Accordingly company has made agreement for the same. Copy of the agreement is enclosed as Annexure-9
xviii	A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied.
xix	Green belt shall be developed in at least 33% of the project area by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.	Progressive measures have taken for extensive plantation by using indigenous species as per guideline. Some pictures of plantation are attached as Annexure-5
xx	All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.	It is being complied and we are in the process of regular compliance of commitments made during public hearing. Various CSR activities have been undertaken by SIPL for the benefit of local community of nearby villages i. e. free health checkup camp and medicines distributions program, distribution of study material to the school students, repairing of school buildings, providing sitting arrangement to the school students. Monetary support for cultural programs in local communities etc. We have dedicated HR & IR personnel to look after the welfare activities and redressing of issues if any.
xxi	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	The amount earmarked is exclusively used for implementation of Enterprise Social Commitment. Our expenditures incurred towards facilitating study materials to the nearby school students, infrastructure development in the schools, organizing free



	Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.	medical health checkup and medicine distribution camp for nearby villagers, blanket distribution to poor villagers in winter season, plants distribution for encouragement of social forestry, drinking water supply and social causes etc.
xxii	The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum- expansion project, which includes village-wise, sector- wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.	SIPL have undertaken various activities in nearby villages in consultation with local communities for their benefit of health, education, plantation, cultural activities, skill development and employment to local people etc. Our HR & IR personnel to look after the welfare activities and redressing of issues if any.
xxiii	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 noncompliance/ violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.	<p>It is compiled and already submitted. SIPL have implemented standard operating procedure to look into any infringement/ deviation/violation of environmental or forest norms/ conditions.</p> <p>SIPL have also the Hierarchical system/ Administrative order to deal with environmental issues and compliance of EC conditions.</p> <p style="text-align: center;"> Chief Managing Director ↓ ED-Corporate ↓ Vice President ↓ AGM-EHS ↓ Head of operation </p>



		<p>SIPL have in placed reporting system for non - compliance / violation of environmental norms.</p> <pre> Board of Directors ↓ Chief Managing Director ↓ ED-Corporate ↓ Vice President ↓ AGM-EHS ↓ Head of operation </pre>
xxiv	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.	We have already started installation of the solar lighting system in strategic areas as directed.
xxv	The project proponent shall provide for LED lights in their offices and residential areas.	Complied.
xxvi	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.	It is being complied.

GENERAL CONDITIONS:

i.	The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board and State Government.	Being adhered as per the stipulation made by WBPCB and State Government. Consent to Operate obtained from WBPCB is attached as Annexure -10
ii.	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	No further modification or expansion will be undertaken without prior approval of the 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, PM2.5, 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	Ambient Air Quality Monitoring being carried on as per direction in consideration of maximum ground level concentration of PM ₁₀ , PM _{2.5} , SO ₂ , and NO _x . Latest Ambient Air Quality monitoring report and stack monitoring report is enclosed as Annexure-6 and Annexure-1



	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 from time to time. The treated wastewater shall be utilized for plantation purpose.	Being complied.
v.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB(A)) 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 dB(A) during day time and 70 dB(A) during night time.	Noise control measures has already been implemented to keep the noise level well within the 85 dB(A) and ambient noise level below 75 dB(A) (during day time) and 70 dB(A) (during night time). Work Zone and Ambient Noise Monitoring report is enclosed as Annexure- 11A & 11B
vi.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupational Health Surveillance of the workers is being carried out.
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.	Rain water harvesting structure has been developed within the plant to harvest the rain water.
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.	Environmental protection measures have been implemented for effective compliance of safe guards recommended in EIA/EMP reports. Socio-economic development of local community has already undertaken through different CSR activities and generating the employment for people of surrounding villages.
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 (MoEF&CC) 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 provided shall not be diverted for any other purpose.	Requisite funds have been earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by MoEF & CC. Accordingly necessary facilities like ESPs followed by silos for de-dusting during boiler operation , bag filters along with dust extraction system, Water sprinkling system for fugitive dust suppression, water tankers for dust suppression on roads, green belt development and water recycling system etc. have been installed for abatement of the environmental pollution. Suitable manpower



		have been engaged for an efficient operation, monitoring and maintenance of the devices installed.
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.	Clearance letter is sent to concerned local body. The EC copy is attached as Annexure-12
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 Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, 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.	Being complied.
xii.	The project proponent shall also submit six monthly report 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 Bhubaneswar/ CPCB/SPCB shall monitor the stipulated conditions.	Six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data being submitted to MoEF & CC and Pollution Control Board in both soft & hard copies.
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 Bhubaneswar by e-mail.	Being complied. The Environment Statement has been submitted to WBPCB and copy of the same sent to Regional Office of the MoEF & CC, Bhubaneswar. Receipt copy attached as Annexure-13



xiv.	The project proponent shall inform the public that the project has been accorded environment 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, Forest 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 newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same should be forwarded to the Regional Office at Bhubaneswar	Complied.
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.	Financial closure as well as date of start of land development work has already been informed.



DETAILS OF ENVIRONMENTAL MONITORING

1. AMBIENT AIR QUALITY MONITORING

Ambient Air Quality Monitoring Stations

Ambient air quality monitoring has been carried out in the month of June, 2019 in four locations to assess the ambient air quality of Project Site. This will enable to have an analytical understanding about air quality and the changes in the air environment in the study area with respect to the condition prevailing. The location of the ambient air quality monitoring station is given in Table 1.1.

Table 1.1 Details of Ambient Air Quality Monitoring Stations

Sl. No.	Location Code	Location Name/ Description	Operational Setup
1.	AAQ-1	Near Security Gate	Sponge, SMS, Rolling Mills and Power Plant
2.	AAQ-2	Madandih Village	Residential area near SIPL
3	AAQ-3	Near Power Plant Control Room	Sponge, SMS, Rolling Mills and Power Plant
4	AAQ-4	Near Laboratory Building	Sponge, SMS, Rolling Mills and Power Plant

Ambient Air Quality Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Particulate Matter PM_{2.5}
- Particulate Matter PM₁₀
- Sulphur Dioxide (SO₂)
- Oxides of Nitrogen (NO_x)

The air samples were analyzed as per standard methods specified by Central Pollution Control Board (CPCB) and IS: 5182. The techniques used for ambient air quality monitoring and minimum detectable levels are given in Table 1.2.

Fine Particulate Sampler APM 550 instruments have been used for monitoring Particulate Matter 2.5 (PM_{2.5} i.e. <2.5 microns), and Respirable Dust Sampler APM 450 was used for sampling Respirable fraction (<10 microns), gaseous pollutants like SO₂, and NO_x.

Table 1.2 Techniques used for Ambient Air Quality Monitoring

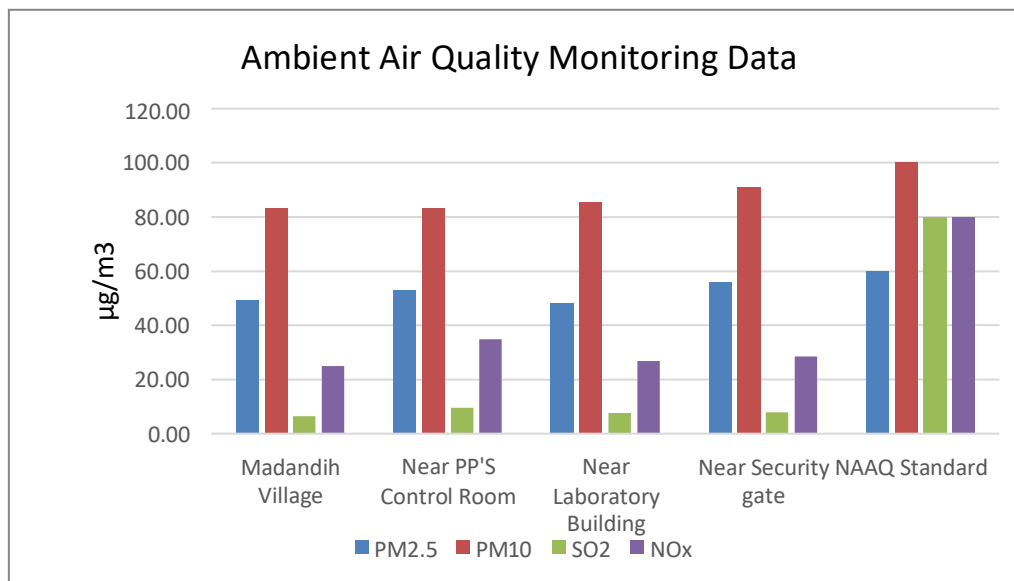
Sl. No.	Parameter	Technique	Technical Protocol
1	Particulate Matter PM _{2.5}	USEPA 1997a, 40 CFR Part 50, Appendix L	IS-5182 (Part-IV)
2	Particulate Matter PM ₁₀	IS 5182 (PART 23) : 2006	IS-5182 (Part-23)
3	Sulphur dioxide (SO ₂)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	IS-5182 (Part- II)
4	Nitrogen dioxide (NO _x)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	IS-5182 (Part-VI)

Ambient Air Quality Monitoring Results

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in Table 1.3.

Table 1.3 Ambient Air Quality Monitoring Results

Compliance Period	27.06.2019 – 28.06.2019	Near Security Gate	Madandih Village	Near Power Plant Control Room	Near Laboratory Building	NAAQ Standard
April 2019 to September 2019	Concentration of PM _{2.5} (µg/m ³)	56.18	49.18	53.00	48.33	60
	Concentration of PM ₁₀ (µg/m ³)	91.0	83.27	83.33	85.40	100
	Concentration of SO ₂ (µg/m ³)	7.86	6.59	9.56	7.65	80
	Concentration of NO _x (µg/m ³)	28.56	24.97	34.96	26.77	80



Discussion on Ambient Air Quality in the Study Area

The level of PM₁₀ and PM_{2.5}, SO₂ and NO_x near Security Gate is under the permissible limit (for residential, rural and other areas as stipulated in the National Ambient Air Quality Standards).

2. STACK GAS MONITORING

Stack gas is generated from many combustion sources, including incinerators, kilns and thermal oxidizers. A thermal oxidizer is a process for the treatment of air exhaust and is commonly used during the incineration of waste. When the stack is mixed with air, the exhausting gas is cool enough to be measured by a thermal mass flow meter, thereby getting the benefit of the fast response and wide turn down of the device. Measuring the flow rate of stack gas is required in order to calculate the overall mass of gas over time. This is a requirement for many environmental regulations.

The sample was taken in month of June, 2019.

The details of the stack attached are given in tabular form in Table 2.1:

Table 2.1 Results of the stack attached to Rotary Kiln (No.1 & 2)

Parameters	Results Kiln-1 & 2 100 TPD (28.06.2019)	Results Kiln- 3 100 TPD (28.06.2019)	Methods
Flue Gas Temperature (°C)	126.7	163.0	IS : 11255 (Part 1)
Barometric Pressure (mm of Hg.)	756.0	756.0	--
Velocity of Gas flow (m/s)	9.31	9.38	IS : 11255 (Part 3)
Quantity of Gas flow (Nm ³ /hr.)	73766.86	74391.18	IS : 11255 (Part III)
Concentration of SO ₂ (mg/Nm ³)	580.20	562.80	IS 11255 (Part 2) 1985 RA 2003
Concentration of CO ₂ %(v/v)	10.2	10.0	IS 13270 1992 RA 2003
Concentration of CO %(v/v)	<1.0	<1.0	IS 13270 1992 RA 2003
Concentration of Particulate Matter (mg/Nm ³) (at 10.2% CO ₂)	35.48	19.81	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol3 11.07) : 2011
Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)	41.74	23.77	

Table 2.2 Results of the stack attached to Rotary Kiln (No 1 & 2) 350 TPD

Parameters	Results as on 29.06.2019	Methods
Flue Gas Temperature (°C)	163.0	IS : 11255 (Part 1)
Barometric Pressure (mm of Hg.)	756.0	--
Velocity of Gas flow (m/s)	8.72	IS : 11255 (Part 3)
Quantity of Gas flow (Nm ³ /hr.)	106344.69	IS : 11255 (Part III)
Concentration of SO ₂ (mg/Nm ³)	570.80	IS 11255 (Part 2) 1985 RA 2003
Concentration of CO ₂ %(v/v)	12.2	IS 13270 1992 RA 2003
Concentration of CO %(v/v)	<1.0	IS 13270 1992 RA 2003
Concentration of Particulate Matter (mg/Nm ³) (at 10.4 % CO ₂)	41.11	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol3 11.07) : 2011 (mg/Nm ³) (at 12% CO ₂)
Concentration of Particulate Matter (mg/Nm ³) (at 12 % CO ₂)	40.43	

Table 2.3 Results of the stack attached to AFBC Boiler

SL. NO.	PARAMETERS	METHOD NO.		RESULTS AS ON 28.06.2019
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	:	127.0
2.	Barometric Pressure (mm of Hg.)	--	:	756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	:	8.29
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	:	152491.65
5.	Concentration of SO ₂ (mg/Nm ³)	IS 11255 (Part 2) 1985 RA 2003	:	540.80
6.	Concentration of NO _x (mg/Nm ³)	IS : 11255 (Part 7) 2005 & ASTM D 1608-98 reapproved 2009 : Sec 11 (Vol. 11.07) : 2011	:	260.50
7.	Concentration of CO ₂ % (v/v)	IS 13270 1992 RA 2003	:	11.6
8.	Concentration of CO % (v/v)	IS 13270 1992 RA 2003	:	<1.0
9.	a) Concentration of Particulate Matter (mg/Nm ³) (at 11.6% CO ₂) b) Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol. 3 11.07) : 2011	:	25.38 26.25

Table 2.4 Results of the stack attached to Hood Over Induction Furnace (4 nos.)

SL. NO.	PARAMETERS	METHOD NO.		RESULTS AS ON 29.06.2019
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	:	67.0
2.	Barometric Pressure (mm of Hg.)	--	:	756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	:	9.54
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	:	23495.99
5.	Concentration of Particulate Matter (mg/Nm ³)	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol. 3 11.07) : 2011	:	28.62

Table 2.5 Results of the stack attached to CFBC Boiler

SL. NO.	PARAMETERS	METHOD NO.		RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	:	232.0
2.	Barometric Pressure (mm of Hg.)	--	:	756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	:	9.27
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	:	101406.57
5.	Concentration of SO ₂ (mg/Nm ³)	IS 11255 (Part 2) 1985 RA 2003	:	560.80
6.	Concentration of NO _x (mg/Nm ³)	IS : 11255 (Part 7) 2005 & ASTM D 1608-98 reapproved 2009 : Sec 11 (Vol. 11.07) : 2011	:	265.50
7.	Concentration of CO ₂ % (v/v)	IS 13270 1992 RA 2003	:	14.0
8.	Concentration of CO % (v/v)	IS 13270 1992 RA 2003	:	<1.0
9.	a) Concentration of Particulate Matter (mg/Nm ³) (at 14% CO ₂) b) Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol. 3 11.07) : 2011	:	42.93 36.79

3. WORK ZONE AIR QUALITY MONITORING

Fugitive emissions are emissions of gases or vapors from pressurized equipment due to leaks and other unintended or irregular releases of gases, mostly from industrial activities. As well as the economic cost of lost commodities, fugitive emissions contribute to air pollution and climate change.

The sampling was done in June 2019 for fugitive analysis. The results are given in tabular form Results of Fugitive Air Analysis inside the Coal Shed

Table 3.1 Results of Fugitive Air Analysis inside the Coal Shed

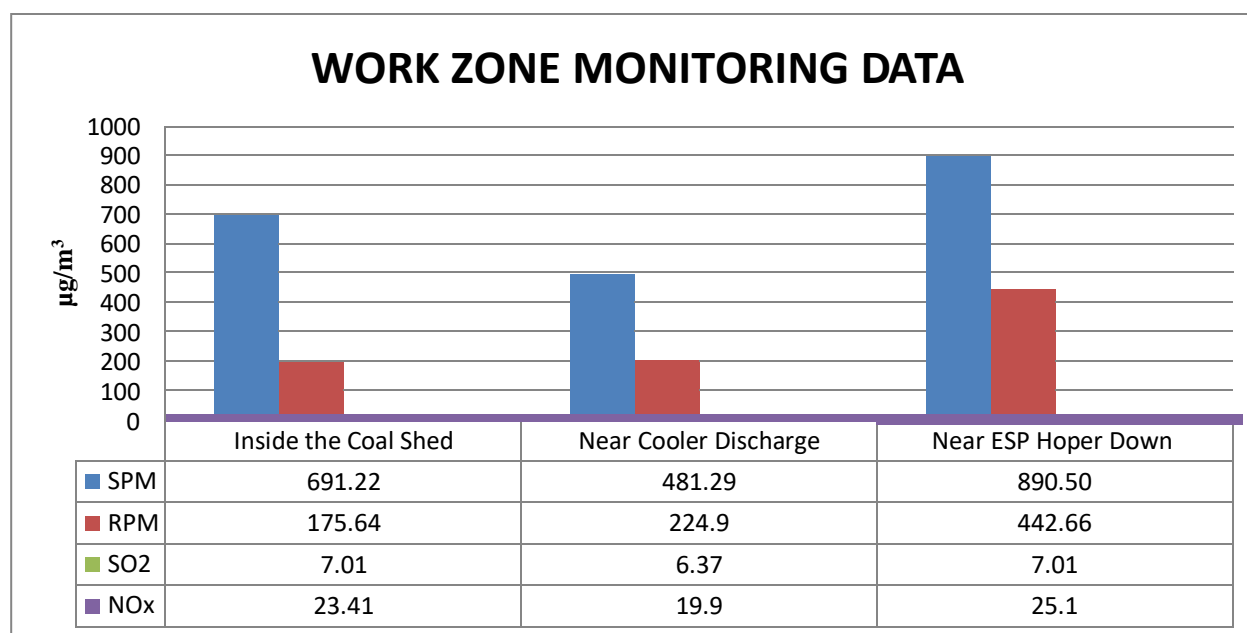
PARAMETERS	METHOD NO.	RESULTS
Concentration of SPM ($\mu\text{g}/\text{m}^3$)	NIOSH 0500 : 1994	691.22
Concentration of *RPM ($\mu\text{g}/\text{m}^3$)	IS 5182 (PART 23) : 2006	175.64
Concentration of *SO ₂ ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	7.01
Concentration of *NO _x ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	23.41

Table 3.2 Results of Fugitive Air analysis Near Cooler Discharge –

PARAMETERS	METHOD NO.	RESULTS
Concentration of SPM ($\mu\text{g}/\text{m}^3$)	NIOSH 0500 : 1994	481.29
Concentration of *RPM ($\mu\text{g}/\text{m}^3$)	IS 5182 (PART 23) : 2006	224.90
Concentration of *SO ₂ ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	6.37
Concentration of *NO _x ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	19.90

Table 3.3 Results of Fugitive Air Analysis near ESP Hoper -

PARAMETERS	METHOD NO.	RESULTS
Concentration of SPM ($\mu\text{g}/\text{m}^3$)	NIOSH 0500 : 1994	890.50
Concentration of *RPM ($\mu\text{g}/\text{m}^3$)	IS 5182 (PART 23) : 2006	442.66
Concentration of *SO ₂ ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	7.01
Concentration of *NO _x ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	25.05



4. Effluent Water Quality Monitoring

Effluent Water sample was collected from waste water storage tank. The sample was analyzed for various parameters. The details of water sampling locations are given in **Table 4.1**.

Table 4.1 Details of Effluent Water Quality Monitoring Station

S. No.	Location Code	Location Name/ Description
1.	Effluent Water	Cooling Water Storage Tank

Methodology of Effluent Water Quality Monitoring

Sampling of effluent water was carried out in June, 2019. Samples were collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample were properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures. Sample for chemical analysis was collected in polyethylene carboys.

Proper care was taken during packing and transportation of samples. All the samples reached the laboratory within the holding times for different parameters. After ensuring the same the samples were forwarded immediately for analysis.

The samples were analyzed as per the standard procedures specified in 'Standard Methods for the Examination of Water and Wastewater' published by American Public Health Association (APHA) and CPCB.

Effluent Water Quality Monitoring Results

The detailed effluent water quality monitoring results are presented in **Table 4.2**.

PARAMETERS		TEST METHODS		RESULTS	LIMIT*
1.	pH	APHA 23 rd Ed., 4500-H+B : 2017	:	7.12	5.5-9.0
2.	Total Suspended Solids (mg./l)	APHA 23 rd Ed., 2540 D : 2017	:	12.0	100.0
3.	Oil and Grease (mg./l)	APHA 23 rd Ed., 5520 B/D : 2017	:	<1.0	10.0
4.	COD (mg./l)	APHA 23 rd Ed., 5220 B/C/D : 2017	:	30.0	250.0
5.	BOD [3 days, 27°C] (mg./l)	APHA 23 rd Ed., 5210-B : 2017	:	7.0	30.0

5. Ambient Noise Monitoring

The main objective of noise monitoring in the study area is to assess the present ambient noise levels in project site due to various construction allied activities and increased vehicular movement. A preliminary reconnaissance survey has been undertaken to identify the major noise generating sources in the area. Ambient noise monitoring was conducted at 4 locations in the month of June, 2019, which is given in tabular form below.

Table 5.1 Results of Ambient Noise Level Study

Location	Monitoring Session	Time	Minimum [dB(A)]	Maximum [dB(A)]	Leq [dB(A)]
Near Security Gate	Day time monitoring	9:00-9:20 (A.M)	60.20	68.90	66.44
	Night time monitoring	10:00-10:20 (P.M)	50.60	58.20	55.89
Madandih Village	Day time monitoring	9:00-9:20 (A.M)	40.20	52.60	49.83
	Night time monitoring	10:00-10:20 (P.M)	36.80	40.10	38.76
Near Power Plant Control Room	Day time monitoring	9:00-9:20 (A.M)	58.30	60.60	59.60
	Night time monitoring	10:00-10:20 (P.M)	49.80	55.20	53.29
Near Laboratory Building	Day time monitoring	9:00-9:20 (A.M)	58.10	62.50	60.83
	Night time monitoring	10:00-10:20 (P.M)	45.20	51.90	49.73

Methodology of Noise Monitoring

Noise levels were measured using integrated sound level meter manufactured by Mastech. The integrating sound level meter is an integrating/ logging type with Octave filter attachment with frequency range of 31.5 to 16000Hz. This instrument is capable of measuring the Sound Pressure Level (SPL), Leq and octave band frequency analysis.

Discussion on Ambient Noise Levels in the Study Area

Day Time Noise Levels (L_{day}):

The day time noise level was found within limit prescribed for Industrial area i.e. 75 dB(A).

Night Time Noise Levels (L_{night}):

The night time noise level was found within limit prescribed for Industrial area i.e. 70 dB(A)

ANNEXURE-1



ENVIROCHECK

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STACK GAS ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	28.06.2019
4.	Report No.	:	59/EC/June/TR(A)/1/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019

A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	:	Rotary Kiln (No.1 & 2) attached to common stack
2.	Shape of Stack	:	Circular
3.	Material of Construction	:	M.S.
4.	Height of Stack from G. L. (mtr.)	:	35.0
5.	Stack I.D. at sampling point (mtr.)	:	2.0
6.	Height of sampling port from G. L. (mtr.)	:	15.0
7.	Capacity	:	100 TPD (each)
8.	Emission due to	:	Oxidation of Coal & Reduction of Fe-Ore
(a) Type of Fuel Used		:	Coal
(b) Fuel Consumption		:	Rated – 5.63 MT/hr./Kiln Working – 5.12 MT/hr./Kiln
9.(a)	Permanent ladder & platform	Yes	(b) Pollution Control Device
			WHRB and E.S.P

B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 126.7
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 9.31
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	: 73766.86
5.	Concentration of SO ₂ (mg/Nm ³)	IS 11255 (Part 2) 1985 RA 2003	: 580.20
6.	Concentration of CO ₂ % (v/v)	IS 13270 1992 RA 2003	: 10.2
7.	Concentration of CO % (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (mg/Nm ³) (at 10.2% CO ₂)	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol. 3 11.07) : 2011	: 35.48
	b) Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)		: 41.74

Remarks : All the information under column A are supplied by the respective industry.

Date : 07.07.2019

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OHSAS
18001 : 2007

STACK GAS ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	28.06.2019
4.	Report No.	:	59/EC/June/TR(A)/II/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019

A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	:	Rotary Kiln (No.3)
2.	Shape of Stack	:	Circular
3.	Material of Construction	:	M.S.
4.	Height of Stack from G. L. (mtr.)	:	32.0
5.	Stack I.D. at sampling point (mtr.)	:	2.0
6.	Height of sampling port from G. L. (mtr.)	:	15.0
7.	Capacity	:	100 TPD
8.	Emission due to	:	Oxidation of Coal & Reduction of Fe-Ore
(a) Type of Fuel Used		:	Coal
(b) Fuel Consumption		:	Rated – 5.63 MT/hr./Kiln Working – 5.12 MT/hr./Kiln
9.(a)	Permanent ladder & platform	Yes	(b) Pollution Control Device
			WHRB and E.S.P

B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 130.0
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 9.38
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	: 74391.18
5.	Concentration of SO ₂ (mg/Nm ³)	IS 11255 (Part 2) 1985 RA 2003	: 562.80
6.	Concentration of CO ₂ % (v/v)	IS 13270 1992 RA 2003	: 10.0
7.	Concentration of CO % (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (mg/Nm ³) (at 10% CO ₂)	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol. 3 11.07) : 2011	: 19.81
	b) Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)		: 23.77

Remarks : All the information under column A are supplied by the respective industry.

Date : 07.07.2019

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STACK GAS ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	28.06.2019
4.	Report No.	:	59/EC/June/TR(A)/III/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019

A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	:	AFBC Boiler
2.	Shape of Stack	:	Circular
3.	Material of Construction	:	Concrete
4.	Height of Stack from G. L. (mtr.)	:	50.0
5.	Stack I.D. at sampling point (mtr.)	:	3.0
6.	Height of sampling port from G. L. (mtr.)	:	20.0
7.	Capacity	:	1 x 36 TPH (Running – 34 TPH)
8.	Emission due to	:	Oxidation of Coal & Dolochar
(a) Type of Fuel Used		:	Coal & Dolochar
(b) Fuel Consumption		:	Coal – 150 TPD Dolochar – 132 TPD
9.(a)	Permanent ladder & platform	Yes	(b) Pollution Control Device
			E.S.P

B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 127.0
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 8.29
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	: 152491.65
5.	Concentration of SO ₂ (mg/Nm ³)	IS 11255 (Part 2) 1985 RA 2003	: 540.80
6.	Concentration of NO _x (mg/Nm ³)	IS : 11255 (Part 7) 2005 & ASTM D 1608-98 reapproved 2009 : Sec 11 (Vol. 11.07) : 2011	: 260.50
7.	Concentration of CO ₂ % (v/v)	IS 13270 1992 RA 2003	: 11.6
8.	Concentration of CO % (v/v)	IS 13270 1992 RA 2003	: <1.0
9.	a) Concentration of Particulate Matter (mg/Nm ³) (at 11.6% CO ₂)	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11 (Vol. 3 11.07) : 2011	: 25.38
	b) Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)		: 26.25

Remarks : All the information under column A are supplied by the respective industry.

Date : 07.07.2019

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STACK GAS ANALYSIS REPORT

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2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	29.06.2019
4.	Report No.	:	59/EC/June/TR(A)/IV/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019

A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	:	Hood Over Induction Furnace (4 nos.) attached to common stack
2.	Shape of Stack	:	Circular
3.	Material of Construction	:	M.S.
4.	Height of Stack from G. L. (mtr.)	:	30.0
5.	Stack I.D. at sampling point (mtr.)	:	1.0
6.	Height of sampling port from G. L. (mtr.)	:	19.0
7.	Capacity	:	25 MT/Heat (2 nos.) + 12 MT/Heat (2 nos.)
8.	Emission due to	:	Melting of Pig Iron, Sponge Iron & Scrap
(a) Type of Fuel Used		:	Electrically Operated
(b) Fuel Consumption		:	Nil
9.(a)	Permanent ladder & platform	:	Yes
(b)	Pollution Control Device	:	Bag Filter

B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	67.0
2.	Barometric Pressure (mm of Hg.)	--	756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	9.54
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	23495.99
5.	Concentration of Particulate Matter (mg/Nm ³)	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol. 3 11.07) : 2011	28.62

Remarks : All the information under column A are supplied by the respective industry.

Date : 07.07.2019

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2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	29.06.2019
4.	Report No.	:	59/EC/June/TR(A)/V/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019

A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	:	Rotary Kiln (No.1 & 2) attached to common stack
2.	Shape of Stack	:	Circular
3.	Material of Construction	:	M.S.
4.	Height of Stack from G. L. (mtr.)	:	72.0
5.	Stack I.D. at sampling point (mtr.)	:	2.60
6.	Height of sampling port from G. L. (mtr.)	:	51.2
7.	Capacity	:	350 TPD (each kiln)
8.	Emission due to	:	Oxidation of Coal & Reduction of Fe-Ore
(a) Type of Fuel Used		:	Coal
(b) Fuel Consumption		:	246 TPD (each kiln)
9.(a)	Permanent ladder & platform	Yes	(b) Pollution Control Device
			WHRB and E.S.P

B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	: 163.0
2.	Barometric Pressure (mm of Hg.)	--	: 756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	: 8.72
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	: 106344.69
5.	Concentration of SO ₂ (mg/Nm ³)	IS 11255 (Part 2) 1985 RA 2003	: 570.80
6.	Concentration of CO ₂ % (v/v)	IS 13270 1992 RA 2003	: 12.2
7.	Concentration of CO % (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (mg/Nm ³) (at 12.2% CO ₂)	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11(Vol. 3 11.07) : 2011	: 41.11
	b) Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)		: 40.43

Remarks : All the information under column A are supplied by the respective industry.

Date : 07.07.2019

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STACK GAS ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	29.06.2019
4.	Report No.	:	59/EC/June/TR(A)/VI/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019

A. GENERAL INFORMATION ABOUT STACK

1.	Stack attached to	:	CFBC Boiler
2.	Shape of Stack	:	Circular
3.	Material of Construction	:	Concrete
4.	Height of Stack from G. L. (mtr.)	:	92.0
5.	Stack I.D. at sampling point (mtr.)	:	2.60
6.	Height of sampling port from G. L. (mtr.)	:	51.2
7.	Capacity	:	Rated – 1 x 100 TPH (Working – 80 TPH)
8.	Emission due to	:	Combustion of Coal & Dolochar
(a) Type of Fuel Used		:	Coal & Dolochar
(b) Fuel Consumption		:	Coal – 280 TPD Dolochar – 192 TPD
9.(a)	Permanent ladder & platform	Yes	(b) Pollution Control Device
			E.S.P

B. RESULTS OF SAMPLING

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Flue Gas Temperature (°C)	IS : 11255 (Part 1)	232.0
2.	Barometric Pressure (mm of Hg.)	--	756.0
3.	Velocity of Gas flow (m/s)	IS : 11255 (Part 3)	9.27
4.	Quantity of Gas flow (Nm ³ /hr.)	IS : 11255 (Part III)	101406.57
5.	Concentration of SO ₂ (mg/Nm ³)	IS 11255 (Part 2) 1985 RA 2003	560.80
6.	Concentration of NO _x (mg/Nm ³)	IS : 11255 (Part 7) 2005 & ASTM D 1608-98 reapproved 2009 : Sec 11 (Vol. 11.07) : 2011	265.50
7.	Concentration of CO ₂ % (v/v)	IS 13270 1992 RA 2003	14.0
8.	Concentration of CO % (v/v)	IS 13270 1992 RA 2003	<1.0
9.	a) Concentration of Particulate Matter (mg/Nm ³) (at 14% CO ₂)	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec 11 (Vol. 3 11.07) : 2011	42.93
	b) Concentration of Particulate Matter (mg/Nm ³) (at 12% CO ₂)		36.79

Remarks : All the information under column A are supplied by the respective industry.

Date : 07.07.2019

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 Email : envcheck@cal2.vsnl.net.in/info@envirocheck.org, Website : www.envirocheck.org
 Branch Office : • Siliguri • Haldia • Durgapur • Dhanbad • Gangtok • Port Blair • Dehradun • New Delhi
 Overseas : • Abu Dhabi • Doha • Amsterdam

ANNEXURE-2



ENVIROCHECK

Laboratory Recognised by MOEF&CC, MBPCB & OSPCB, Accredited by NABL and ISO 14001:2015 & OHSAS 18001:2007 Certified



WORK ZONE (FUGITIVE) AIR ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Purulia - 723121
3.	Date of sampling	:	28.06.2019
4.	Report No.	:	59/EC/June/TR(A)/XI/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019
7.	Particular of Plant	:	Steel & Power Unit

A] GENERAL INFORMATION

1.	Location of Sampling	:	Inside the Coal Shed
2.	Duration of Sampling	:	08 hrs. (10:30 a.m. - 06:30 p.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature ($^{\circ}$ C)	:	33.4
2.	Average Relative Humidity (%)	:	68.0
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of SPM (μ g/m ³)	NIOSH 0500 : 1994	691.22
2.	Concentration of *RPM (μ g/m ³)	IS 5182 (PART 23) : 2006	175.64
3.	Concentration of *SO ₂ (μ g/m ³)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	7.01
4.	Concentration of *NO _x (μ g/m ³)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	23.41

Note : The Parameters marked with an (*) are not Accredited by NABL.

Date : 07.07.2019

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 t 033-25792891/25497490, Fax : 033-25299141
 Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 t 033-25792889
 Email : envcheck@cal2.vsnl.net.in/info@envirocheck.org, Website : www.envirocheck.org
 Branch Office : • Siliguri • Haldia • Durgapur • Dhanbad • Gangtok • Port Blair • Dehradun • New Delhi
 Overseas : • Abu Dhabi • Doha • Amsterdam



WORK ZONE (FUGITIVE) AIR ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Purulia - 723121
3.	Date of sampling	:	28.06.2019
4.	Report No.	:	59/EC/June/TR(A)/XII/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019
7.	Particular of Plant	:	Steel & Power Unit

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Cooler Discharge (DRI Section)
2.	Duration of Sampling	:	08 hrs. (11:00 a.m. - 07:00 p.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature ($^{\circ}\text{C}$)	:	34.6
2.	Average Relative Humidity (%)	:	67.2
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of SPM ($\mu\text{g}/\text{m}^3$)	NIOSH 0500 : 1994	481.29
2.	Concentration of *RPM ($\mu\text{g}/\text{m}^3$)	IS 5182 (PART 23) : 2006	224.90
3.	Concentration of *SO ₂ ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	6.37
4.	Concentration of *NO _x ($\mu\text{g}/\text{m}^3$)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	19.90

Note : The Parameters marked with an (*) are not Accredited by NABL.

Date : 07.07.2019

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager



WORK ZONE (FUGITIVE) AIR ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Purulia - 723121
3.	Date of sampling	:	28.06.2019
4.	Report No.	:	59/EC/June/TR(A)/XIII/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019
7.	Particular of Plant	:	Steel & Power Unit

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near ESP Hoper Down (CPP Division)
2.	Duration of Sampling	:	08 hrs. (11:00 a.m. - 07:30 p.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature ($^{\circ}$ C)	:	34.6
2.	Average Relative Humidity (%)	:	67.2
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell

C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of SPM (μ g/m ³)	NIOSH 0500 : 1994	890.50
2.	Concentration of *RPM (μ g/m ³)	IS 5182 (PART 23) : 2006	442.66
3.	Concentration of *SO ₂ (μ g/m ³)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	7.01
4.	Concentration of *NO _x (μ g/m ³)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	25.05

Note : The Parameters marked with an (*) are not Accredited by NABL.

Date : 07.07.2019

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

ANNEXURE-3



MAIN ENTRANCE GATE OF THE COMPANY



RCC ROAD STARTED INSIDE FROM MAIN GATE OF THE COMPANY



RCC ROAD INSIDE THE FACTORY ALONG WITH WATER SPRINKLING

ANNEXURE-4



MECHANICAL SWIPING MACHINE AT WORK ON THE ROAD

ANNEXURE-5

PLANTATION INSIDE THE PLANT BY INDIGENOUS SPECIES



PLANTATION PIC #1



PLANTATION PIC #2



PLANTATION PIC #3



PLANTATION PIC #4



PLANTATION PIC #5

ANNEXURE-6



ENVIROCHECK

Laboratory Recognised by MOEF&CC, MBPCB & OSPCB, Accredited by NABL and ISO 14001:2015 & OHSAS 18001:2007 Certified



AMBIENT AIR ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	28.06.2019 – 29.06.2019
4.	Report No.	:	59/EC/June/TR(A)/VII/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019
7.	Particular of Plant	:	Steel & Power Unit

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Security Gate (Southern Side)
2.	Duration of Sampling	:	24 hrs. (10:30 a.m. – 10:30 a.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (°C)	:	31.0
2.	Average Relative Humidity (%)	:	64.0
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell
5.	Weather Condition	:	Clear Weather

C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5} (µg/m ³)	USEPA 1997a, 40 CFR Part 50, Appendix L	56.18
2.	Concentration of PM ₁₀ (µg/m ³)	IS 5182 (PART 23) : 2006	91.0
3.	Concentration of SO ₂ (µg/m ³)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	7.86
4.	Concentration of NO _x (µg/m ³)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	28.56
5.	Concentration of CO (mg/m ³)	IS 5182 (Part 10): 1999 reaffirmed 2005 & ASTM D 3162-94 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	0.18
6.	Concentration of Pb (µg/m ³)	IS 5182 (Part 22) 2004	<0.01
7.	Benzo (a) Pyrene (BaP) (ng/m ³)	IS 5182 (Part 12) : 2004 & ASTM D 6209-98 reapproved 2004 : Sec 11 (Vol. 11.07) : 2011	<0.36
8.	Benzene (C ₆ H ₆) (µg/m ³)	IS 5182 (Part 11) 2006 & ASTM D 5466-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	<0.74
9.	Ozone (O ₃) (µg/m ³)	IS 5182 (Part-IX) : 1974	<10.0
10.	Ammonia (NH ₃) (µg/m ³)	NIOSH Manual of Analytical Method, 4 th Edition 1994, Method 6015, issue 2	<4.18
11.	Nickel (Ni) (ng/m ³)	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As) (ng/m ³)	EPA IO 3.2, 1999, APHA 23 rd Ed 3114C : 2017	<0.01

Date : 07.07.2019

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 t 033-25792891/25497490, Fax : 033-25299141
 Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 t 033-25792889
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ENVIROCHECK

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AMBIENT AIR ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	28.06.2019 – 29.06.2019
4.	Report No.	:	59/EC/June/TR(A)/VIII/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019
7.	Particular of Plant	:	Steel & Power Unit

A] GENERAL INFORMATION

1.	Location of Sampling	:	Madandih Village (0.5 K.M. from Plant) (Eastern Side)
2.	Duration of Sampling	:	24 hrs. (10:30 a.m. – 10:30 a.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (°C)	:	31.0
2.	Average Relative Humidity (%)	:	64.0
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell
5.	Weather Condition	:	Clear Weather

C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5} (µg/m ³)	USEPA 1997a, 40 CFR Part 50, Appendix L	49.18
2.	Concentration of PM ₁₀ (µg/m ³)	IS 5182 (PART 23) : 2006	83.27
3.	Concentration of SO ₂ (µg/m ³)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	6.59
4.	Concentration of NO _x (µg/m ³)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	24.97

Date : 07.07.2019

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ; 033-25792891/25497490, Fax : 033-25299141
 Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ; 033-25792889
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ENVIROCHECK

Laboratory Recognised by MOEF&CC, MBPCB & OSPCB, Accredited by NABL and ISO 14001:2015 & OHSAS 18001:2007 Certified



AMBIENT AIR ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	28.06.2019 – 29.06.2019
4.	Report No.	:	59/EC/June/TR(A)/IX/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019
7.	Particular of Plant	:	Steel & Power Unit

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Power Plant Control Room (Western Side)
2.	Duration of Sampling	:	24 hrs. (11:00 a.m. – 11:00 a.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (°C)	:	31.0
2.	Average Relative Humidity (%)	:	64.0
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell
5.	Weather Condition	:	Clear Weather

C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5} (µg/m ³)	USEPA 1997a, 40 CFR Part 50, Appendix L	53.0
2.	Concentration of PM ₁₀ (µg/m ³)	IS 5182 (PART 23) : 2006	83.33
3.	Concentration of SO ₂ (µg/m ³)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	9.56
4.	Concentration of NO _x (µg/m ³)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	34.96

Date : 07.07.2019

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ; 033-25792891/25497490, Fax : 033-25299141
 Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ; 033-25792889
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ENVIROCHECK

Laboratory Recognised by MOEF&CC, MBPCB & OSPCB, Accredited by NABL and ISO 14001:2015 & OHSAS 18001:2007 Certified



AMBIENT AIR ANALYSIS REPORT

1.	Name of the Industry	:	Shakambhari Ispat & Power Ltd.
2.	Address	:	Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Date of sampling	:	28.06.2019 – 29.06.2019
4.	Report No.	:	59/EC/June/TR(A)/X/19-20
5.	Analysis completed on	:	01.07.2019
6.	Reporting Date	:	07.07.2019
7.	Particular of Plant	:	Steel & Power Unit

A] GENERAL INFORMATION

1.	Location of Sampling	:	Near Laboratory Building (SMS Division) (Northern Side)
2.	Duration of Sampling	:	24 hrs. (11:30 a.m. – 11:30 a.m.)

B] METEOROLOGICAL INFORMATION

1.	Average Temperature (°C)	:	31.0
2.	Average Relative Humidity (%)	:	64.0
3.	Barometric Pressure (mm of Hg)	:	756.0
4.	Smell or Odour	:	No Remarkable Smell
5.	Weather Condition	:	Clear Weather

C] RESULTS

SL. NO.	PARAMETERS	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5} (µg/m ³)	USEPA 1997a, 40 CFR Part 50, Appendix L	48.33
2.	Concentration of PM ₁₀ (µg/m ³)	IS 5182 (PART 23) : 2006	85.40
3.	Concentration of SO ₂ (µg/m ³)	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007 : Sec 11 (Vol. 11.07) : 2011	7.65
4.	Concentration of NO _x (µg/m ³)	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec 11 (Vol. 11.07) : 2011	26.77

Date : 07.07.2019

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ; 033-25792891/25497490, Fax : 033-25299141
 Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 ; 033-25792889
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 Branch Office : • Siliguri • Haldia • Durgapur • Dhanbad • Gangtok • Port Blair • Dehradun • New Delhi
 Overseas : • Abu Dhabi • Doha • Amsterdam

ANNEXURE-7



EFFLUENT WATER ANALYSIS REPORT

1.	Name of the Industry	: Shakambhari Ispat & Power Ltd.
2.	Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Report No.	: Env/507/W/M/June/19-20
4.	Date of sampling	: 28.06.2019
5.	Reporting date	: 05.07.2019
6.	Type of sample	: Effluent Water (Grab)
7.	Location of sample	: Cooling Tower Recycled Water Storage Tank
8.	Collection & Preservation of sample	: APHA 23 rd Ed., 1060 : 2017
9.	Sample collected in presence of	: Company Representative

PARAMETERS	TEST METHODS	RESULTS
1. pH	APHA 23 rd Ed., 4500-H+B : 2017	: 7.12
2. Total Suspended Solids (mg./l)	APHA 23 rd Ed., 2540 D : 2017	: 12.0
3. Oil and Grease (mg./l)	APHA 23 rd Ed., 5520 B/D : 2017	: <1.0
4. COD (mg./l)	APHA 23 rd Ed., 5220 B/C/D : 2017	: 30.0
5. BOD [3 days, 27°C] (mg./l)	APHA 23 rd Ed., 5210-B : 2017	: 7.0

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

ANNEXURE-8



ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & OSPCB
Accredited by NABL (ISO/IEC 17025:2005)



TCLP REPORT

1.	Name of the Industry	: Shakambhari Ispat & Power Ltd.
2.	Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Purulia – 723121
3.	Report No.	: Env/1526A/S/M/19-20
4.	Date of sampling	: 28.06.2019
5.	Date of analysis	: 07.07.2019
6.	Type of sample	: E.S.P Bottom Ash
7.	Location	: Ash Dumping Yard

<u>Sl. No.</u>	<u>PARAMETERS</u>	<u>TEST METHOD</u>	<u>UNIT</u>	<u>RESULTS</u>	<u>LIMIT as per EPA Chapter-7</u>
1.	Cadmium as Cd	EPA 200.8	mg./l	<0.002	1.0
2.	Mercury as Hg	EPA 200.8	mg./l	<0.001	0.2
3.	Total Chromium as Cr	EPA 200.8	mg./l	2.30	5.0
4.	Arsenic as As	EPA 200.8	mg./l	<0.01	5.0
5.	Barium as Ba	EPA 200.8	mg./l	6.80	100.0
6.	Lead as Pb	EPA 200.8	mg./l	0.90	5.0
7.	Selenium as Se	EPA 200.8	mg./l	<0.01	1.0
8.	Silver as Ag	EPA 200.8	mg./l	<0.01	5.0

Authorised Signatory :

DR. AJOY PAUL
Scientist

ANNEXURE-9

B.S.C REFRACTORIES AND CERAMICS

Mob.: 9434071611
8145812111

Jamuria Industrial Estate P.O. - Mondalpur, Ward No.- 13, Burdwan (W.B.) Pin - 713336

AGREEMENT

Ref. No.

Date : 12.05.2015.....

This agreement hereinafter referred to as ("the Agreement) made on this the first day of May, Two Thousand Fifteen by and M/s. Shakambhari Ispat & Power Ltd., a company incorporated under the companies Act,1956 and having its registered office at Diamond Prestige Building, 41A, A.J.C.Bose Road, 8th Floor, Room No. 801, Kolkata 700017 hereinafter referred to as SIPL (which expression shall unless excluded by or repugnant to the subject or context be deemed to mean and include its successor or successors and permitted assigns) of the ONE Part and M/s B.S.C. Refractories & Ceramics, a partnership firm and having its Office at Jamuria Industrial Estate, P.O. Mandalpur, Ward No. 13, Burdwan - 713336 (which expression shall unless excluded by or repugnant to the subject or context be deemed to mean and include its successor or successors and permitted assigns) of the OTHER Part

Whereas, the First Party had offered "Fly Ash" to M/s B.S.C. Refractories & Ceramics generated from the Proposed AFBC Boiler at the Captive Power Plant of SIPL. The rate of the Fly Ash will be decided fortnightly.

Whereas M/s B.S.C. Refractories & Ceramics shall arrange to place vehicle for lifting of the Fly Ash on daily basis and will pay the freight to the transporter/truck driver as per lorry receipt and at actual being the charges from Unit of SIPL, Neturia to the unit of M/s B.S.C. Refractories & Ceramics, Jamuria Industrial Estate, Burdwan. Vehicles carrying Fly Ash shall be emptied and release at earliest.

M/s B.S.C. Refractories & Ceramics will utilize the Fly Ash towards manufacturing of Fly Ash Bricks at its factory at Jamuria Industrial Estate.

Period of Agreement: This agreement shall remain in force for a period of 7 years from the date of Commissioning of the Proposed Captive Power Plant of SIPL.

Dispute Resolution: That in the event of any dispute of difference between the parties in respect to this Agreement shall be settled by amicable negotiation between the parties failing which the same shall be decided by Arbitration in accordance with the provision of Arbitration and Conciliation Act,1966.

In witness thereof the parties here to have executed this above written Agreement on the first day of May Two Thousand and Fifteen.

Signed and delivered by the above
B.S.C. Refractories & Ceramics
Kailash Kumar Agarwal
Name: Kailash Agarwal
Degn : Partner Partner
M/s B.S.C. Refractories & Ceramics

Signed and delivered by the above
Shakambhari Ispat & Power Ltd.
Name: Vinay Kumar Agarwal
Degn: Director Director
Shakambhari Ispat & Power Ltd.

In presence of:

Witness No. 1: Ayush Agarwala
Ayush Agarwala

Witness No. 2: Sunil Das

ANNEXURE-10

WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan'
Bldg. No. - 10A, Block - LA, Sector-III
Salt Lake City, Kolkata-700 098



Consent Letter Number : **CO110135**

apply for renewal of
consent 60 (Sixty) days
before expiry

Memo Number : **1767 -WPBA/Red(Pr1)/Cont(81)/2002**

Date : **09-08-18**

Consent to Operate

under

Section 25 & 26 of the **Water (Prevention and Control of Pollution) Act, 1974** and
Section 21 of the **Air (Prevention and Control of Pollution) Act, 1981**

The West Bengal Pollution Control Board (hereinafter referred to as State Board) under the provisions of Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974, as amended and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended and Rules and Orders made thereunder, hereby grants its consent to :

M/S. Shakambhari Ispat & Power Ltd.

.....(Address of Regd. office/Head/Office/City Office)

(hereinafter referred to as Applicant) for its unit located at **Vill- Madandih, P.O. Barteria,**

P.S. Neturia, Dist- Purulia, Pin-723121

.....(Detailed address of the manufacturing unit)

for a period from **upto 31-07-2023**

to operate the industrial unit and to discharge liquid effluent and to emit gaseous effluent from the premises/land of the industrial unit, in accordance with the conditions as mentioned in the Annexure to this consent letter provided on any day at any instance the quantity and quality of liquid discharge and gaseous emission shall not exceed the permissible limit as specified in the Table I & II of this consent letter and in the Environmental (Protection) Act, 1986.

Breach of the conditions and / or failure to comply with the directions as set out in the Annexure shall render the applicant liable for prosecution under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alter the conditions of this consent letter giving one month's notice to the applicant.



For and on behalf of the State Board

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

[Handwritten signature]
09/08/18

ANNEXURE

Consent to M/S. Shakambhari Ispat & Power Ltd.
 for its unit at Vill- Madandih, P.O. Barteria, P.S. Neturia, Dist-Purulia
Pin-723121

Conditions :

01. This Consent is valid for the manufacture of :-

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	Billets	16600 MT
02	Electricity	29 MW
03	Sponge Iron	9000 MT
04		
05		
06		
07		
08		
09		
10		
11		
12		

02. The *Applicant* shall remain responsible for quantity and quality of liquid effluent and air emissions.
03. **Daily** discharge of industrial liquid effluent shall not exceed NIL KL.
04. **Daily** discharge of domestic liquid effluent shall not exceed 5.0 KL.
05. **Daily** discharge of mixed (industrial & domestic) liquid effluent shall not exceed NIL KL.
06. The *Applicant* shall discharge liquid effluent to Soak Pit (place of discharge) through One (01) nos. outlets / outfalls.
07. To bring into any altered or new outlet/outfall or to change the place of discharge, the Applicant shall have to inform the Board and obtain prior permission of the Board in this effect.
08. The *Applicant* shall provide comprehensive facility for treatment of industrial liquid waste and domestic liquid waste (sewage, sullage and liquid effluent generated from canteen), and operate and maintain the same continuously so that the quality of final effluent conforms to the *Standard* as given in Table-I in page 03.

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Continued.....

Consent to M/s. Shakambhari Ispat & Power Ltd.
 for its unit at Vill- Madandih, P.O..Barteria, P.S..Neturia, Dist- Purulia
Pim-723121

11. The *Applicant* shall install suitable device for measuring the volume of water consumed for different purposes as mentioned above giving correct result to the satisfaction of the *State Board*.
12. All the stacks connected to various sources of emissions must be designated by numbers such as S-1, S-2, S-3, etc., and this must be painted/displayed to facilitate identification.
13. The *Applicant* shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the *Standard* as given in Table-II below :

Table-II

Stack No.	Stack height from G.L., (in mts.)	Stack attached to (sources and control system, if any):	Volume Nm ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)			
S-1									
S-2			SEE Annexure 'A' attached						
S-3									
S-4									
S-5									
S-6									
S-7									
S-8									
S-9									
S-10									

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Continued.....

Consent to M/S. Shakambhari Ispat & Power Ltd.

for its unit at Vill- Madandih, P.O. Barteria, P.S. Neturia, Dist-Purulia
Pin-723121

24. The *Applicant* shall maintain a separate register showing consumption of chemicals used in pollution control systems.
25. The *Applicant* shall get the samples of hazardous wastes/leachates analysed at least once in from the laboratory recognised of the West Bengal Pollution Control Board and ensure that they conform to the limits stipulated. Test reports shall be sent to the Board.
26. The *Applicant* shall provide adequate and safe facility for collection of air, waste water and solid waste samples by the *State Board's* staff as well as *State Board's* authorised agencies.
27. The *Applicant* shall submit to the *State Board* by the 30th September of every year the Environmental Statement Report for the financial year ending 31st March of the current year in the prescribed form (Form -V) as required under the provisions of rule 14 of the Environment (Protection) [Second Amendment] rules, 1992.
28. The *Applicant* shall allow the Officers of the *State Board* to enter into the applicant's premises at any reasonable time to inspect the pollution control systems as well as monitoring and measuring devices in connection with prevention & control of pollution.
29. The *Applicant* shall maintain an Inspection Book in the factory premises which shall be made available to Officers & employees of the *State Board* for inspection, review and to write down any direction or observation as is deemed necessary during the inspection from time to time.
30. The *Application* shall furnish to the *State Board* all information in respect of quality, quantity, rate of discharge, place of discharge of liquid effluent and air emissions.
31. The *Applicant* shall maintain adequate number of qualified and trained personnel among his staff for proper maintenance and operation of the effluent treatment and / or emission control devices and for overall environment management of the industry.
32. The *Applicant* shall have to make registration for the use of groundwater if any, with Central Ground Water Authority.
33. The *Applicant* shall intimate to the *State Board* immediately of any occurrence or apprehension of occurrence of discharge of any poisonous, noxious or pollutants in excess of quality as well as quality as mentioned earlier to any receiving water body/receiving system or to atmosphere owing to accident or other unforeseen incident/event including natural disaster. The *Applicant* Shall (i) take all steps adequate to prevent such accident discharge/release of poisonous, noxious or pollutants and to limit their consequences to persons and the environment, (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and mitigate the accidental release of poisonous noxious or pollutants to the environment.
34. The *Applicant* shall make an application to the *State Board* in the prescribed form for renewal of the consent at least 60 (sixty) days before the date of expiry of this Consent.
35. The *Applicant* shall not make any alternation/modification/expansion in the existing manufacturing process and equipment as well as the pollution control system without prior approval of the Board.
36. The *Applicant* shall comply with the conditions as laid down in the Manufacture, Storage and Import of hazardous Chemicals Rules, 1989 and Hazardous Wastes (Management & Handling) Rules, 1989.

Additional Conditions Please See Annexure 'B' attached.

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

(5)

Consent to M/s. Shakambhari Ispat & Power Ltd.

for its unit at Vill- Madandih, P.O. Barteria, P.S. Neturia, Dist- Purulia

Pin-723121

14. The *Applicant* shall provide ports in the stack(s) and other necessary permanent facilities such as ladder, platform, etc. for monitoring/sampling the air emissions and the same shall be made available for inspection and use by the *State Board's* staff as well as *State Board's* authorised agencies.

15. The *Applicant* shall observe the following fuel consumption pattern :-

Sl. No	Type of fuel	Quantity consumed per day	Fuel burning operation where the fuel is used
01	Coal	390 MT	Rotary Kilns (03 nos.)
02	Coal & Delechar	180 MT	AFBC Boiler
03	M S D	-	D.G.Sets (03 nos.)
04			
05			

16. The *Applicant* shall maintain the generation and treatment/disposal of non-hazardous solid waste as specified below :-

Type of waste	Quantity	Treatment	Disposal
Delechar	1440 MT	-	used in CPP
Mix Dust	600 MT	-	Land Filling

17. The *Applicant* shall take adequate measures for control of noise levels from its own sources within the premises within the limit given below :-

Time	Limit in dB(A) L_{eq}
Day Time (06 a.m. to 09 p.m.)	65
Night Time (09 p.m. to 06 a.m.)	55

18. The *Applicant* shall at all times maintain good house-keeping, proper working order, and operate efficiently for control of pollution from all sources so as not to cause nuisance to surrounding areas/inhabitants and to achieve compliance with the terms and conditions of the consent.

19. The *Applicant* shall bring about at least 33% of the available open land under the green coverage / plantation.

20. The *Applicant* shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the *Applicant* to maintain compliance with the terms and conditions of the consent. In absence of such an alternate electric power source, the *Applicant* shall stop, reduce or otherwise control production to abide by the terms and conditions of the Consent regarding pollution level.

21. The *Applicant* shall install a separate energy meter showing the consumption of energy for operation of pollution control devices.

22. The *Applicant* shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.

23. The *Applicant* shall provide drainage system for conveying industrial and domestic liquid waste. Storm-water drain shall be kept separate from the drainage system meant for industrial and domestic liquid waste

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Continued.....

ANNEXURE – 'A'

Consent Letter Sl. No.: col10135.....

WEST BENGAL POLLUTION CONTROL BOARD
Paribesh Bhawan; Bldg. No.-10A, Block – L.A., Sector – III
Salt Lake City, Kolkata – 700 106

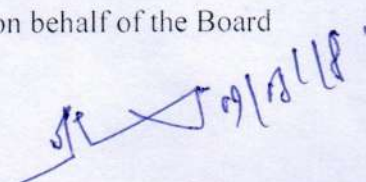
Name of the Unit: **M/s Shakambhari Ispat & Power Ltd.**

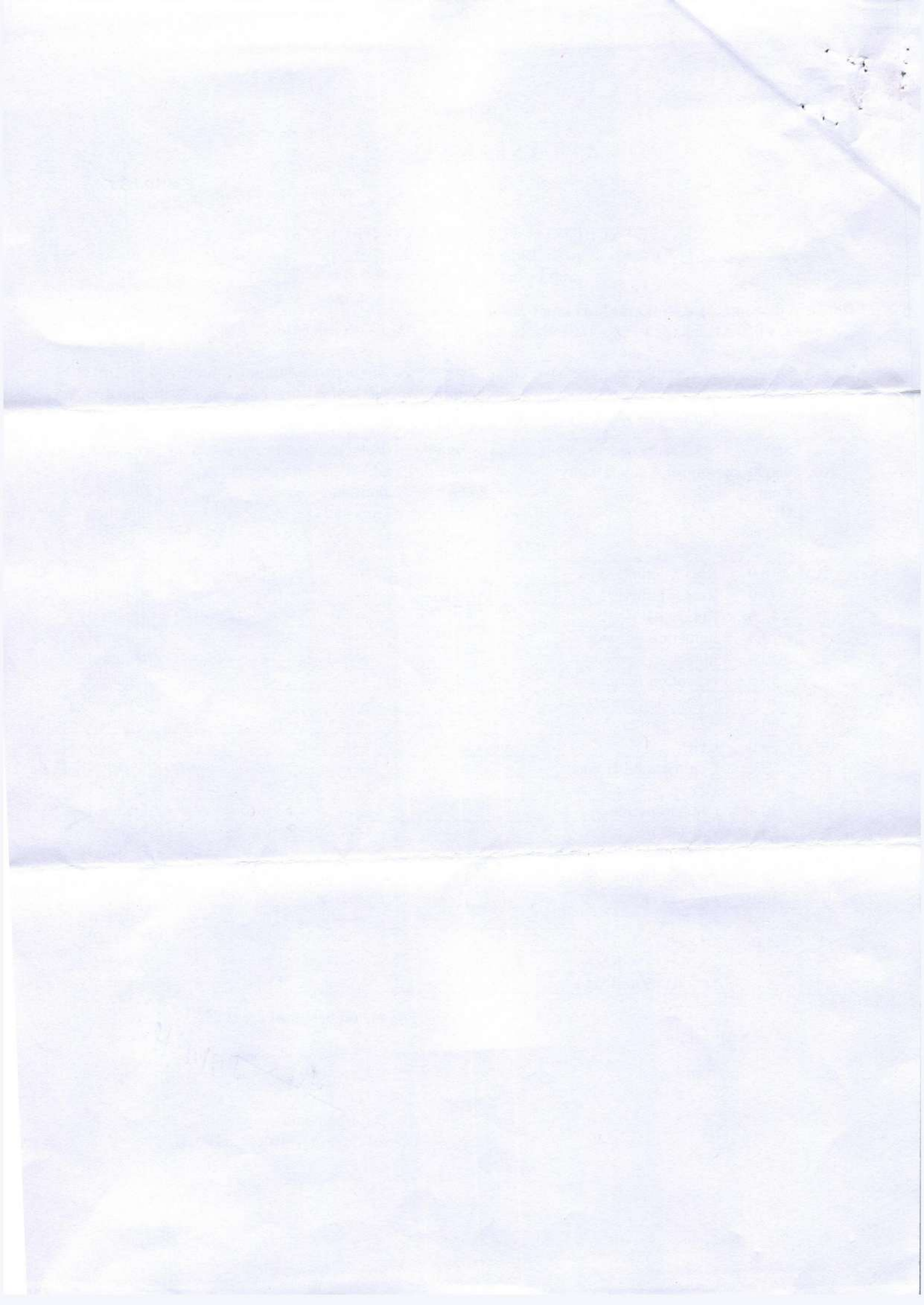
Located at Vill – Madandih, P. O. – Bartoria, P. S. – Neturia, Dist. – Purulia, Pin – 723121

The Applicant shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants to the Standard as given in Table – II below:

Sl. No.	Stack height from GL (Meters)	Stack attached to (sources and control system, if any)	Volume (Nm ³ /hr)	Velocity of gas emission (m / sec)	Concentrations of parameters not to exceed		Frequency of emission sampling
					SPM (mg/ Nm ³)	CO (% v/ v)	
1.	35.0	Rotary Kilns – 1	-----	-----	100	1	Quarterly
2.	35.0	Rotary Kilns – 2	-----	-----	100	1	Quarterly
3.	42.0	Rotary Kilns – 3	-----	-----	100	1	Quarterly
4.	30.0	Induction Furnace – 1	-----	-----	50	---	Quarterly
5.	30.0	Induction Furnace – 2	-----	-----	50	-----	Quarterly
6.	30.0	Induction Furnace – 3	-----	-----	50	---	Quarterly
7.	30.0	Induction Furnace – 4	-----	-----	50	-----	Quarterly
8.	60.0	AFBC Boiler	-----	-----	50	1	Quarterly
9.	30.0	CHP	-----	-----	50	-----	Quarterly
10.	30.0	Coal Ground Hopper	-----	-----	50	-----	Quarterly
11.	00.0	DD Fan	-----	-----	50	-----	Quarterly
12.	30.0	Cooler Discharge – 1	-----	-----	50	-----	Quarterly
13.	30.0	Cooler Discharge – 2	-----	-----	50	-----	Quarterly
14.	30.0	Cooler Discharge – 3	-----	-----	50	-----	Quarterly
15.	30.0	Product House – 1	-----	-----	50	-----	Quarterly
16.	30.0	Product House – 2	-----	-----	50	-----	Quarterly
17.	30.0	I. Bin	-----	-----	50	-----	Quarterly
18.	8.0	DG Set (500 KVA)	-----	-----	150	1	Quarterly
19.	8.0	DG Set (750 KVA)	-----	-----	150	1	Quarterly
20.	8.0	DG Set (500 KVA)	-----	-----	150	1	Quarterly

For and on behalf of the Board


Environmental Engineer
Asansol Regional Office, WBPCB



ANNEXURE – 'B'

Consent Letter Sl. No.: ...0110135.....

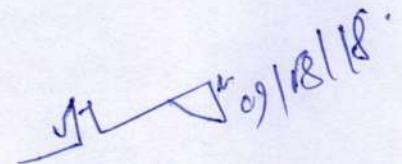
WEST BENGAL POLLUTION CONTROL BOARD
Paribesh Bhawan; Bldg. No.-10A, Block – L.A., Sector – III
Salt Lake City, Kolkata – 700 106

Name of the Unit: **M/s Shakambhari Ispat & Power Ltd**
Located at Vill – Madandih, P. O. – Batoria, P. S. – Neturia, Dist. – Purulia, Pin – 723121

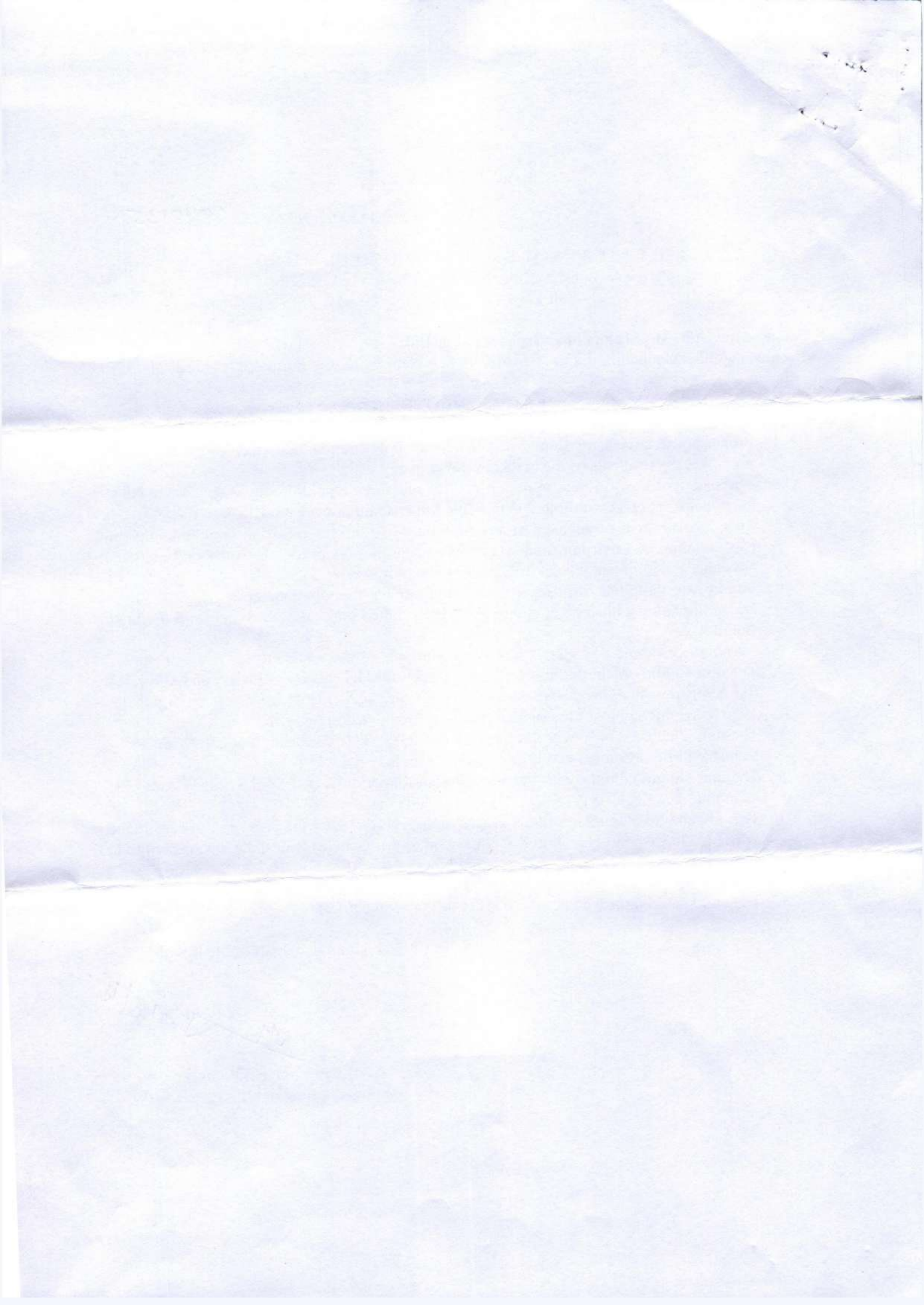
ADDITIONAL CONDITIONS

1. Proper & effective steps should be taken so as to ensure that manufacturing activities do not affect the residents of the neighbourhood in any way.
2. The unit will have to take pollution control measures regarding air, water and noise to keep the parameters within the permissible limit as laid down by WBPCB.
3. This consent shall be revoked at any time on the valid ground of any public complaint (for violation of Environmental Acts) against the unit regarding air, water pollution and any other environmental hazards caused by the unit.
4. Solid waste should be disposed off in an environment friendly manner.
5. No additional machinery / equipment can be installed without permission from the State Board.
6. No nuisance should be caused to the neighbourhood residence due to activity of the unit.
7. The unit should obtain permission for the three (03) DG sets of 750 KVA and 500 KVA (02 nos.) from the Directorate of Electricity as per 47A rule of Indian Electricity Rules 1956 & submit a copy of the same to the State Board accordingly.
8. The unit should comply with the provision of GSR 371 (E) dated 17.05.2002 issued by Ministry of Environment and Forest, Govt. of India.
9. The unit should comply with the sixteen-point direction issued by the State Board vide memo no. 1044 – 4 / WPB / CE – II / GEN / 2008 dated 01.06.2012.
10. The unit should obtain Hazardous Waste Authorisation under the provision of Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 and submit the copy of same to the State Board accordingly.
11. The unit should take immediate action to repair Cap leakage in the DRI Kiln-I.
12. The unit should improve internal road condition at an earliest.

For and on behalf of the Board



Environmental Engineer
Asansol Regional Office, WBPCB



WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan',
Bldg. No. - 10A, Block-LA, Sector-III,
Salt Lake City, Kolkata-700 098



Consent Letter Number : **CO107584**

Memo Number : **582-2S-CO-S/11/0064**

Expansion

Date : **06.12.2018**

Consent to Operate

under **Application no. CO0000000207553**

Section 25 & 26 of the **Water (Prevention and Control of Pollution) Act, 1974** and
Section 21 of the **Air (Prevention and Control of Pollution) Act, 1981.**

The West Bengal Pollution Control Board (hereinafter referred to as State Board) under the provisions of Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974, as amended and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended, and Rules and Orders made thereunder, hereby grants its consent to :

Shakambhari Ispat & Power Ltd.,

WEST BENGAL

(Address of Regd. office/Head/Office/City Office)

(hereinafter referred to as Applicant) for its unit located at **Vill: Madandih, P.O: Barteria,**

P.S: Neturia, Dist. Purulia, W.B., India, Pin - 723121.

(Detailed address of the manufacturing unit)

for a period from **the date of issue** to **31/07/2023**

to operate the industrial unit and to discharge liquid effluent and to emit gaseous effluent from the premises/land of the industrial unit, in accordance with the conditions as mentioned in the Annexure to this consent letter provided on any day at any instance the quantity and quality of liquid discharge and gaseous emission shall not exceed the permissible limit as specified in the Table I & II of this consent letter and in the Environmental (Protection) Act, 1986.

Breach of the conditions and / or failure to comply with the directions as set out in the Annexure shall render the applicant liable for prosecution under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alter the conditions of this consent letter giving one month's notice to the applicant.



Application for renewal shall be filed at least 120 (one hundred twenty) days before the date of expiry of this certificate.

For and on behalf of the State Board

[Signature] / 06.12.2018

(Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst.Env.Engr.)

ANNEXURE

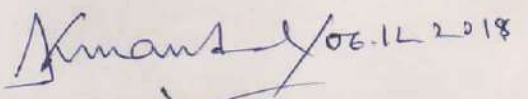
Consent to **Shakambhari Ispat & Power Ltd.,**
 for its unit at **Vill: Madandih, P.O: Barteria, P.S: Neturia, Dist. Purulia,**
Pin - 723121, W.B. India.

Conditions :

01. This Consent is valid for the manufacture of :-

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	Billet	56320 TPA
02	Sponge Iron	224000 TPA
03	Captive Power	40 MW
04		
05		
06		
07		
08		
09		
10		
11		
12		

02. The *Applicant* shall remain responsible for quantity and quality of liquid effluent and air emissions.
03. **Daily** discharge of industrial liquid effluent shall not exceed KL.
04. **Daily** discharge of domestic liquid effluent shall not exceed **5.0** KL.
05. **Daily** discharge of mixed (industrial & domestic) liquid effluent shall not exceed KL.
06. The *Applicant* shall discharge liquid effluent to **Soak Pit** (place of discharge) through **01 (one)** nos. outlets/outfalls.
07. To bring into any altered or new outlet/outfall or to change the place of discharge, the *Applicant* shall have to inform the Board and obtain prior permission of the Board in this effect.
08. The *Applicant* shall provide comprehensive facility for treatment of industrial liquid waste and domestic liquid waste (sewage, sullage and liquid effluent generated from canteen), and operate and maintain the same continuously so that the quality of final effluent conforms to the *Standard* as given in Table-I in page 03.


/06.12.2018
 (Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst.Env.Engr.)

Consent to **Shakambhari Ispat & Power Ltd.,**
 Vill: **Madandih, P.O: Barteria, P.S: Neturia, Dist. Purulia,**
 for its unit at
Pin - 723121, W.B., India.

11. The *Applicant* shall install suitable device for measuring the volume of water consumed for different purposes as mentioned above giving correct result to the satisfaction of the *State Board*.
12. All the stacks connected to various sources of emissions must be designated by numbers such as S-1, S-2, S-3, etc., and this must be painted/displayed to facilitate identification.
13. The *Applicant* shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the *Standard* as given in Table-II below :

Table - II (See Annexure)

Stack No.	Stack height from G.L. (in mts.)	Stack attached to (sources and control system, if any) :	Volume Nm ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed			Frequency of emission sampling
					SPM (mg/Nm ³)	CO (% v/v)		
S-I								
S-2								
S-3								
S-4								
S-5								
S-6								
S-7								
S-8								
S-9								
S-10								

/06.12.2018
 (Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst. Env. Engr.)

Consent to Shakambhari Ispat & Power Ltd.,
 for its unit at Vill: Madandih, P.O: Barteria, P.S: Neturia, Dist, Purulia,
Pin - 723121, W.B., India.

11. The Applicant shall provide ports in the stack(s) and other necessary permanent facilities such as ladder, platform, etc. for monitoring/sampling the air emissions and the same shall be made available for inspection and use by the State Board's staff as well as State Board's authorised agencies.
15. The Applicant shall observe the following fuel consumption pattern :=

Sl. No.	Type of fuel	Quantity consumed per day	Fuel burning operation where the fuel is used
01	Coal	14784 TPM	DRI Kiln(2x350 TPD) + AFBC
02			Boiler (1x100 TPH).
03			
04			
05			

16. The Applicant shall maintain the generation and treatment / disposal of non-hazardous solid waste as specified below :

Type of waste	Quantity	Treatment	Disposal
Delechar	2480 TPM	-	To be used in AFBC Boiler
MS Slag	925 TPM	-	Land filling.
Dust/Ash	600.0 TPM	-	Land filling.

17. The Applicant shall take adequate measures for control of noise levels from its own sources within the premises within the limit given below :-

Time	Limit in dB(A) L_{eq}
Day Time (06 a.m. to 09 p.m.)	75
Night Time (09 p.m. to 06 a.m.)	70

18. The Applicant shall at all times maintain good house-keeping, proper working order, and operate efficiently for control of pollution from all sources so as not to cause nuisance to surrounding areas/inhabitants and to achieve compliance with the terms and conditions of the consent.
19. The Applicant shall bring about at least 33% of the available open land under the green coverage/plantation.
20. The Applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the Applicant to maintain compliance with the terms and conditions of the consent. In absence of such an alternate electric power source, the Applicant shall stop, reduce or otherwise control production to abide by the terms and conditions of the Consent regarding pollution level.
21. The Applicant shall install a separate energy meter showing the consumption of energy for operation of pollution control devices.
22. The Applicant shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
23. The Applicant shall provide drainage system for conveying industrial and domestic liquid waste. Storm-water drain shall be kept separate from the drainage system meant for industrial and domestic liquid waste.

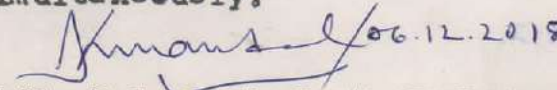
(Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst. Env. Engr.)

Consent to **Shakambhari Ispat & Power Ltd.,**
 for its unit at **Vill: Madandih, P.O: Barteria, P.S: Neturia, Dist. Purulia,**
Pin - 723121, W.B., India.

24. The *Applicant* shall maintain a separate register showing consumption of chemicals used in pollution control systems.
25. The *Applicant* shall get the samples of hazardous wastes/leachates analysed at least once in from the laboratory recognised of the West Bengal Pollution Control Board and ensure that they conform to the limits stipulated. Test reports shall be sent to the Board.
26. The *Applicant* shall provide adequate and safe facility for collection of air, wastewater and solid waste samples by the *State Board's* staff as well as *State Board's* authorised agencies.
27. The *Applicant* shall submit to the *State Board* by the 30th September of every year the Environmental Statement Report for the financial year ending 31st March of the current year in the prescribed form (Form-V) as required under the provisions of rule 14 of the Environment (Protection) [Second Amendment] Rules. 1992.
28. The *Applicant* shall allow the Officers of the *State Board* to enter into the applicant's premises at any reasonable time to inspect the pollution control systems as well as monitoring and measuring devices in connection with prevention & control of pollution.
29. The *Applicant* shall maintain an Inspection Book in the factory premises which shall be made available to Officers & employees of the *State Board* for inspection, review and to write down any direction or observation as is deemed necessary during the inspection from time to time.
30. The *Applicant* shall furnish to the *State Board* all information in respect of quality, quantity, rate of discharge, place of discharge of liquid effluent and air emissions.
31. The *Applicant* shall maintain adequate number of qualified and trained personnel among his staff for proper maintenance and operation of the effluent treatment and/or emission control devices and for overall environment management of the industry.
32. The *Applicant* shall have to make registration for the use of groundwater, if any, with Central Ground Water Authority.
33. The *Applicant* shall intimate to the *State Board* immediately of any occurrence or apprehension of occurrence of discharge of any poisonous, noxious or pollutants in excess of quality as well as quantity as mentioned earlier to any receiving water body/receiving system or to atmosphere owing to accident or other unforeseen incident / event including natural disaster. The *Applicant* shall (i) take all steps adequate to prevent such accidental discharge / release of poisonous, noxious or pollutants and to limit their consequences to persons and the environment. (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and mitigate the accidental release of poisonous, noxious or pollutants to the environment.
34. The *Applicant* shall make an application to the *State Board* in the prescribed form for renewal of the consent at least 60 (sixty) days before the date of expiry of this Consent.
35. The *Applicant* shall not make any alternation/modification/expansion in the existing manufacturing process and equipment as well as the pollution control system without prior approval of the Board.
36. The *Applicant* shall comply with the conditions as laid down in the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Hazardous Wastes (Management & Handling) Rules, 1989.

Additional Conditions 1) See Annexure.

2) DRI Kiln & AFBC Boiler must be started simultaneously.

/06.12.2019
 (Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst.Env.Engr.)



WEST BENGAL POLLUTION CONTROL BOARD
 (Department of Environment, Government of West Bengal)
 Office of the Senior Environmental Engineer
 Kankinara Circle Office
 Panpur More, P.O. – Narayanpur, Kankinara, 24-Parganas (N), Pin – 743 126
 Special Condition

Annexure to Consent to Operate Letter Number: CO107584 of M/s. Shakambari Ispat & Power Ltd located at the existing unit at Vill.-Madandih, P.O.-Bartoria, P.S.-Neturia, Dist.-Purdia, PIN-723121

1. Conditions mentioned in the Environmental Clearance issued by MOEF Vide No.J-11011/201/2013 – IA-II (I) dated 21/12/2016 must be complied with.
2. Conditions mentioned in the Consent to Establish (NOC) issued by the State Board vide Memo No. 101-2N-21/2012(E) dated 16/03/2017 and its amendment vide Memo. No. 330-2N-21/2012(E) dated 15/06/2018 must be complied with.
3. FORM-V for Environmental Statement and six monthly compliance report as per condition of Environmental Clearance must be submitted before due date.
4. Emission Standards as mentioned below must be complied with.

Table-II

Sl No.	Stack height from GL (in mts.)	Stack attached to (Sources & control system, if any)	Volume Nm ³ /hr	Velocity of gaseous emission (m/sec)	Concentration of parameters not to exceed					Frequency of sampling
					SPM (mg/Nm ³)	CO (%v/v)	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)	Mercury(Hg) (mg/Nm ³)	
S-1	92.0	AFBC Boiler(1x100TPH)	-	-	30.0	--	100.0	100.0	0.03	Quarterly
S-2	72.0	DRI Kiln(2x350TPD)	-	-	50.0	--	-----	-----	-----	
S-3	30.0	Cooler Discharge	-	-	50.0	-	-	-	-	
S-4	30.0	CHP Crusher House)	-	-	50.0	-	-	-	-	
S-5	30.0	CHP Bunker Top	-	-	50.0	-	-	-	-	
S-6	30.0	I-Bin and Product separation Building	-	-	50.0	-	-	-	-	
S-7	30.0	Coal feeding circuit	-	-	50.0	-	-	-	-	
S-8	30.0	Iron feeding circuit	-	-	50.0	-	-	-	-	
S-9	30.0	Day Bin Stock House	-	-	50.0	-	-	-	-	
S-10	30.0	Product House	-	-	50.0	-	-	-	-	
S-11	30.0	Induction Furnace(1x25T/Heat)	-	-	50.0	-	-	-	-	

5. Zero Liquid Discharge Principle should be strictly maintained.
6. This Consent to Operate for operation may be revoked at any time for non-compliance of the Environmental Statutes.

[Signature]
 For and on behalf of the Board

WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan'
Bldg. No. - 10A, Block - LA, Sector-III
Salt Lake City, Kolkata-700 098



Consent Letter Number : CO113782

Expansion

Memo Number : 50-23-co-8/11/0064

Date : 06/09/2019

Consent to Operate

under

Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974 and
Section 21 of the Air (Prevention and Control of Pollution) Act, 1981

The West Bengal Pollution Control Board (hereinafter referred to as State Board) under the provisions of Section 25 & 26 of the Water (Prevention and Control of Pollution) Act, 1974, as amended and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended and Rules and Orders made thereunder, hereby grants its consent to :

M/s. Shakambhari Dpat & Power Limited

(Address of Regd. office/Head/Office/City Office)

(hereinafter referred to as Applicant) for its unit located at existing unit premises in villi

Madandih, P.O. - Bantonia, P.S. - Neturia, Dist. - Purulia,
Pin - 723121

(Detailed address of the manufacturing unit)

for a period from date of issue to 31/07/2023

to operate the industrial unit and to discharge liquid effluent and to emit gaseous effluent from the premises/land of the industrial unit, in accordance with the conditions as mentioned in the Annexure to this consent letter provided on any day at any instance the quantity and quality of liquid discharge and gaseous emission shall not exceed the permissible limit as specified in the Table I & II of this consent letter and in the Environmental (Protection) Act, 1986.

Breach of the conditions and / or failure to comply with the directions as set out in the Annexure shall render the applicant liable for prosecution under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alter the conditions of this consent letter giving one month's notice to the applicant.



For and on behalf of the State Board

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Abhoshi
06/09/19
Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

ANNEXURE

Consent to M/s. Shakambhari Ispat & Power Limited.
 for its unit at Vill: Madandih, P.O. - Bastoria, P.S. - Neturia,
Dist :- Purulia, Pin - 723121

Conditions :

01. This Consent is valid for the manufacture of :-

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	M. S. Billets	1,06,800 TPA
02	TMT bars/wire	1,80,000 TPA
03		
04		
05		
06		
07		
08		
09		
10		
11		
12		

02. The Applicant shall remain responsible for quantity and quality of liquid effluent and air emissions.
03. Daily discharge of industrial liquid effluent shall not exceed KL.
04. Daily discharge of domestic liquid effluent shall not exceed KL.
05. Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed 5.0 KL.
06. The Applicant shall discharge liquid effluent to settling tank to municipal drain (place of discharge) through 01 (one) nos. outlets / outfalls.
07. To bring into any altered or new outlet/outfall or to change the place of discharge, the Applicant shall have to inform the Board and obtain prior permission of the Board in this effect.
08. The Applicant shall provide comprehensive facility for treatment of industrial liquid waste and domestic liquid waste (sewage, sullage and liquid effluent generated from canteen), and operate and maintain the same continuously so that the quality of final effluent conforms to the Standard as given in Table-I in page 03.

(Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst. Env. Engr.)

Harsh
06/09/19
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

Continued.....

(4)

Consent to M/s. Shakambhari Ispat & Power Limited.
for its unit at Vill: Madandih, P.O. - Bartonia, P.S. - Neturia,
Dist:- Purulia, Pin-723121

- 11. The Applicant shall install suitable device for measuring the volume of water consumed for different purposes as mentioned above giving correct result to the satisfaction of the State Board.
- 12. All the stacks connected to various sources of emissions must be designated by numbers such as S-1, S-2, S-3, etc., and this must be painted/displayed to facilitate identification.
- 13. The Applicant shall install comprehensive control system consisting of pollution control equipment as is warranted with reference to generation of air emissions and operate and maintain the same continuously so as to achieve the level of pollutants of the Standard as given in Table-II below :

Table-II

Stack No.	Stack height from G.L., (in mts.)	Stack attached to (sources and control system, if any):	Volume Nm ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed					Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)				
S-1	30	1X25 MT/heat induction furnace + 1X8 MT/heat			50	1	-	-	-	Yearly
S-2		Induction furnace with Air Pollution Control								
S-3		Systems- sparkarrestor cum cyclone separator								
S-4		and Bag filter.								
S-5										
S-6										
S-7										
S-8										
S-9										
S-10										

Handwritten signature
06/09/19

(Member Secretary/Chief Engr./Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

113782

(5)

Consent to M/s. Shakambhari Ispat & Power Limited
 for its unit at Vill: Madandih, P.O. - Bastoria, P.S. - Neturia,
Dist: - Purulia, Pin - 723121

14. The Applicant shall provide ports in the stack(s) and other necessary permanent facilities such as ladder, platform, etc. for monitoring/sampling the air emissions and the same shall be made available for inspection and use by the State Board's staff as well as State Board's authorised agencies.
15. The Applicant shall observe the following fuel consumption pattern :-

SL No	Type of fuel	Quantity consumed per day	Fuel burning operation where the fuel is used
01	Electricity	—	1X8 MT/heat and 1X25 MT/heat
02			Induction.
03			
04			
05			

16. The Applicant shall maintain the generation and treatment/disposal of non-hazardous solid waste as specified below :-

Type of waste	Quantity	Treatment	Disposal
Slag	975 MT/m.	—	land filling.

17. The Applicant shall take adequate measures for control of noise levels from its own sources within the premises within the limit given below :-

Time	Limit in dB(A) L_{eq}
Day Time (06 a.m. to 10 p.m.)	75
Night Time (10 p.m. to 06 a.m.)	70

18. The Applicant shall at all times maintain good house-keeping, proper working order, and operate efficiently for control of pollution from all sources so as not to cause nuisance to surrounding areas/inhabitants and to achieve compliance with the terms and conditions of the consent.
19. The Applicant shall bring about at least 33% of the available open land under the green coverage / plantation.
20. The Applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the Applicant to maintain compliance with the terms and conditions of the consent. In absence of such an alternate electric power source, the Applicant shall stop, reduce or otherwise control production to abide by the terms and conditions of the Consent regarding pollution level.
21. The Applicant shall install a separate energy meter showing the consumption of energy for operation of pollution control devices.
22. The Applicant shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
23. The Applicant shall provide drainage system for conveying industrial and domestic liquid waste. Storm-water drain shall be kept separate from the drainage system meant for industrial and domestic liquid waste

(Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Atwardi
06/09/19
Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

Consent to M/s. Shakambhari Ispat & Power Limited
 for its unit at Vill: Madandih, P.O. - Bantonia, P.S. - Neturia,
Dist: - Purulia, Pin - 723121.

24. The Applicant shall maintain a separate register showing consumption of chemicals used in pollution control systems.
25. The Applicant shall get the samples of hazardous wastes/leachates analysed at least once in from the laboratory recognised of the West Bengal Pollution Control Board and ensure that they conform to the limits stipulated. Test reports shall be sent to the Board.
26. The Applicant shall provide adequate and safe facility for collection of air, waste water and solid waste samples by the State Board's staff as well as State Board's authorised agencies.
27. The Applicant shall submit to the State Board by the 30th September of every year the Environmental Statement Report for the financial year ending 31st March of the current year in the prescribed form (Form -V) as required under the provisions of rule 14 of the Environment (Protection) [Second Amendment] rules, 1992.
28. The Applicant shall allow the Officers of the State Board to enter into the applicant's premises at any reasonable time to inspect the pollution control systems as well as monitoring and measuring devices in connection with prevention & control of pollution.
29. The Applicant shall maintain an Inspection Book in the factory premises which shall be made available to Officers & employees of the State Board for inspection, review and to write down any direction or observation as is deemed necessary during the inspection from time to time.
30. The Application shall furnish to the State Board all information in respect of quality, quantity, rate of discharge, place of discharge of liquid effluent and air emissions.
31. The Applicant shall maintain adequate number of qualified and trained personnel among his staff for proper maintenance and operation of the effluent treatment and / or emission control devices and for overall environment management of the industry.
32. The Applicant shall have to make registration for the use of groundwater if any, with Central Ground Water Authority.
33. The Applicant shall intimate to the State Board immediately of any occurrence or apprehension of occurrence of discharge of any poisonous, noxious or pollutants in excess of quality as well as quality as mentioned earlier to any receiving water body/receiving system or to atmosphere owing to accident or other unforeseen incident/event including natural disaster. The Applicant Shall (i) take all steps adequate to prevent such accident discharge/release of poisonous, noxious or pollutants and to limit their consequences to persons and the environment, (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and mitigate the accidental release of poisonous noxious or pollutants to the environment.
34. The Applicant shall make an application to the State Board in the prescribed form for renewal of the consent at least 60 (sixty) days before the date of expiry of this Consent.
35. The Applicant shall not make any alternation/modification/expansion in the existing manufacturing process and equipment as well as the pollution control system without prior approval of the Board.
36. The Applicant shall comply with the conditions as laid down in the Manufacture, Storage and Import of hazardous Chemicals Rules, 1989 and Hazardous Wastes (Management & Handling) Rules, 1989.

Additional Conditions See annexure .

(Member Secretary/Chief Engr./Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

Atarshi
06/09/19
Environmental Engineer
W. B. Pollution Control Board
Operation & Executive Cell

Annexure to Consent Letter Number – **CO113782**

Additional Conditions issued to **M/s. Shakambhari Ispat & Power Limited** at existing factory premises - Vill- Madandih, P.O-Bartoria, P.S-Neturia, Dist- Purulia, PIN--723121.

1. The unit should comply all the conditions issued in earlier Environmental Clearance, Consent to Establish and Consent to Operate.
2. The unit shall comply the directives issued by the Board vide memo no.630-WPBA/Red(Pri/Cont(81)/2002 Part-III dated 30/07/2019.
3. The unit should obtain all the statutory licenses as applicable from other concerned Govt. Department.
4. This consent may be revoked at any time on violation of environmental norms.
5. The unit shall submit a status of compliance of the conditions stipulated in EC.
6. This consent to Operate is valid for operation of Induction Furnace- 1x25 Ton in place of 2x15Ton and existing Induction Furnace -1x8 Ton and enhancement of capacity of Rolling Mill from 400 TPD to 600 TPD without oil fired reheating furnace by directly charging the hot billets.

Atardi
06/09/19

Environmental Engineer
West Bengal Pollution Control Board
Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

ANNEXURE-11A



ENVIROCHECK

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NOISE LEVEL STUDY (WORK ZONE)

I.	Name of the Industry/Factory/Company	: Shakambharilspat & Power Limited
II.	Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
III.	Date of Sampling	: 28/06/2019
IV.	Reporting Date	: 07/07/2019
V.	Report No	: 440/EC/M/N/I/19-20
VI.	Method No	: IS: 9989 - 1981
VII.	Time of Duration of Noise	: 20 Minutes
VIII.	Height from Ground Level	: 4 feet
IX.	Type of Industry	: Steel & Power Unit
X.	Sample Monitoring by	: Mr. Kuntal Saha

RESULT OF NOISE LEVEL STUDY					Time :10:00 - 10:20A.M
DAY TIME					
1. Location : Coal Shed Area (RM Handling Section)					
Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	60.4	68.2	65.20	East Side
02.	dB(A)	63.2	69.5	66.12	West Side
03.	dB(A)	62.1	68.2	65.18	North Side
04.	dB(A)	61.5	69.2	66.28	South Side
Average dB(A) Leq				65.69	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<



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Certified by ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007



NOISE LEVEL STUDY (WORK ZONE)

I.	Name of the Industry/Factory/Company	: Shakambharilspat & Power Limited
II.	Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
III.	Date of Sampling	: 28/06/2019
IV.	Reporting Date	: 07/07/2019
V.	Report No	: 440/EC/M/N/II/19-20
VI.	Method No	: IS: 9989 - 1981
VII.	Time of Duration of Noise	: 20 Minutes
VIII.	Height from Ground Level	: 4 feet
IX.	Type of Industry	: Steel & Power Unit
X.	Sample Monitoring by	: Mr. Manik Saha

RESULT OF NOISE LEVEL STUDY					Time :10:30 - 10:50A.M
DAY TIME					
2. Location : Near Cooler Discharge (DRI Section)					
Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	70.5	74.3	73.10	East Side
02.	dB(A)	71.2	75.7	72.50	West Side
03.	dB(A)	72.3	76.9	74.36	North Side
04.	dB(A)	70.8	75.8	72.89	South Side
Average dB(A) Leq				73.21	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<



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NOISE LEVEL SYUDY (WORK ZONE)

I. Name of the Industry/Factory/Company	: Shakambharilspat & Power Limited
II. Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
III. Date of Sampling	: 28/06/2019
IV. Reporting Date	: 07/07/2019
V. Report No	: 440/EC/M/N/III/19-20
VI. Method No	: IS: 9989 - 1981
VII. Time of Duration of Noise	: 20 Minutes
VIII. Height from Ground Level	: 4 feet
IX. Type of Industry	: Steel & Power Unit
X. Sample Monitoring by	: Mr. Biswajit Dey

RESULT OF NOISE LEVEL STUDY					Time :11:00 - 11:20A.M
DAY TIME					
3. Location : Near ESP Hooper Down (CPP Area)					
Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	69.3	73.2	71.50	East Side
02.	dB(A)	69.5	72.8	70.10	West Side
03.	dB(A)	68.7	70.2	69.21	North Side
04.	dB(A)	69.4	72.6	71.50	South Side
Average dB(A) Leq				70.57	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<

ANNEXURE-11B



ENVIROCHECK

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NOISE LEVEL SYUDY (AMBIENT)

I. Name of the Industry/Factory/Company	: Shakambhari Ispat& Power Limited
II. Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
III. Date of Sampling	: 28/06/2019 - 29/06/2019
IV. Reporting Date	: 07/07/2019
V. Report No	: 439C/EC/M/N/I/19-20
VI. Method No	: IS: 9989 - 1981
VII. Time of Duration of Noise	: 20 Minutes
VIII. Height from Ground Level	: 4 feet
IX. Type of Industry	: Steel & Power Unit
X. Sample Monitoring by	: Mr. Biswarup Kundu

RESULTS OF NOISE LEVEL STUDY

DAY TIME

1. Location of Study : Near Security Gate - Southern Side

Time (A.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
9:00 - 9:20	60.2	68.9	66.44

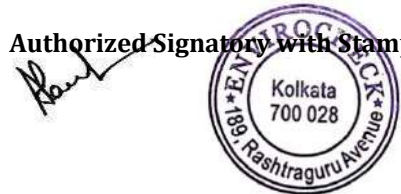
NIGHT TIME

2. Location of Study : Near Security Gate - Southern Side

Time (P.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
10:00 - 10:20	50.6	58.2	55.89

Report Print Date: 07/07/2019

Authorized Signatory with Stamp



>End of Report<

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 { 033-25792891/25497490, Fax : 033-25299141
Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 { 033-25792889
Email : envcheck@cal2.vsnl.net.in/envirocheck50@gmail.com / Website : www.envirocheck.org
Branch Office : ▪ Siliguri ▪ Haldia ▪ Durgapur ▪ Dhanbad ▪ Gangtok ▪ Port Blair ▪ Dehradun ▪ New Delhi
Overseas : ▪ UAE ▪ Qatar ▪ Netherlands



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Certified by ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007



NOISE LEVEL SYUDY (AMBIENT)

I. Name of the Industry/Factory/Company	: Shakambhari Ispat& Power Limited.
II. Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
III. Date of Sampling	: 28/06/2019 - 29/06/2019
IV. Reporting Date	: 07/07/2019
V. Report No	: 439C/EC/M/N/II/19-20
VI. Method No	: IS: 9989 - 1981
VII. Time of Duration of Noise	: 20 Minutes
VIII. Height from Ground Level	: 4 feet
IX. Type of Industry	: Steel & Power Unit
X. Sample Monitoring by	: Mr. Kaushik Podder

RESULTS OF NOISE LEVEL STUDY

DAY TIME

1. Location of Study : Madandih Village (0.5 km from Plant) - Eastern Side

Time (A.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
9:30 - 9:50	40.2	52.6	49.83

NIGHT TIME

2. Location of Study : Madandih Village (0.5 km from Plant) - Eastern Side

Time (P.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
10:30 - 10:50	36.8	40.1	38.76

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Certified by ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007



NOISE LEVEL SYUDY (AMBIENT)

I. Name of the Industry/Factory/Company	: Shakambhari Ispat& Power Limited.
II. Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
III. Date of Sampling	: 28/06/2019 - 29/06/2019
IV. Reporting Date	: 07/07/2019
V. Report No	: 439C/EC/M/N/III/19-20
VI. Method No	: IS: 9989 - 1981
VII. Time of Duration of Noise	: 20 Minutes
VIII. Height from Ground Level	: 4 feet
IX. Type of Industry	: Steel & Power Unit
X. Sample Monitoring by	: Mr. Kuntal Saha

RESULTS OF NOISE LEVEL STUDY

DAY TIME

1. Location of Study : Near Power Plant Control Room - Western Side

Time (A.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
10:00 - 10:20	58.3	60.6	59.60

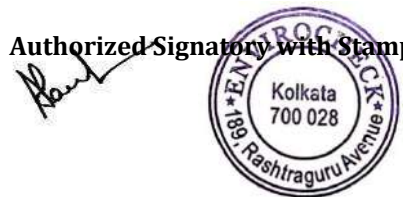
NIGHT TIME

2. Location of Study : Near Power Plant Control Room - Western Side

Time (P.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
11:00 - 11:20	49.8	55.2	53.29

Report Print Date: 07/07/2019

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>End of Report<

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 { 033-25792891/25497490, Fax : 033-25299141
Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 { 033-25792889
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Certified by ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007



NOISE LEVEL SYUDY (AMBIENT)

I. Name of the Industry/Factory/Company	: Shakambhari Ispat& Power Limited.
II. Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
III. Date of Sampling	: 28/06/2019 - 29/06/2019
IV. Reporting Date	: 07/07/2019
V. Report No	: 439C/EC/M/N/IV/19-20
VI. Method No	: IS: 9989 - 1981
VII. Time of Duration of Noise	: 20 Minutes
VIII. Height from Ground Level	: 4 feet
IX. Type of Industry	: Steel & Power Unit
X. Sample Monitoring by	: Mr. Kuntal Saha

RESULTS OF NOISE LEVEL STUDY

DAY TIME

1. Location of Study : Near Laboratory Building (SMS Division) - Northern Side

Time (A.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
10:30 - 10:50	58.1	62.5	60.83

NIGHT TIME

2. Location of Study : Near Laboratory Building (SMS Division) - Northern Side

Time (P.M)	Minimum dB(A)	Maximum dB(A)	Leq dB(A)
11:30 - 11:50	45.2	51.9	49.73

Report Print Date: 07/07/2019

Authorized Signatory with Stamp



>End of Report<

ANNEXURE-12

F. No. J-11011/201/2013-IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi - 110003
E-mail: satish.garkoti@nic.in
Tel: 011- 24695316

Dated: 21st December, 2016

To

✓
M/s Shakambhari Ispat and Power Ltd.,
Village Pavatpur, Radhamadhabpur, Madand,
PO-Bortoria, District Purulia, West Bengal.

Subject: Expansion of Integrated Steel Plant (from existing 0.074 MTPA Steel Billets to 0.3 MTPA Rolled products and 0.2 MTPA Billet) with captive power plant of 99 MW [65 MW (6 MW existing + 59 MW proposed) from AFBC and 34 MW (6 MW existing + 28 MW proposed) from WHRB] of M/s Shakambhari Ispat and Power Ltd., located at Village Pavatpur, Radhamadhabpur, Madandih, PO-Bortoria, District Purulia, West Bengal – Environmental Clearance regarding.

Sir,

This has reference to your online application No. IA/WB/IND/48189/2014 Dated 6th February, 2016 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. An application for proposed integrated Steel plant of M/s Shakambhari Ispat and Power Ltd. was initially received in the Ministry on 05.03.2013 for obtaining Terms of References (TORs) as per EIA Notification, 2006. The revised Form- I was received on 04.11.2014. The project was appraised by the Expert Appraisal Committee (Industry) during its meeting held on 11.12.2014 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 vide letter No. J-11011/201/2013-IAII(I) dated 13th April, 2015. The proposed project activity is listed at S.No. 3(a) under Category 'A' of the Schedule of EIA Notification 2006.

2.0 It is an existing steel plant located at Village Pavatpur, P.O. Bartoria, P.S. Neturia, District Purulia, West Bengal. The proposal is for enhancement of integrated steel plant production from 0.074 MTPA Steel Billets to 0.3 MTPA Rolled products and 0.2 MTPA Billet. The power plant capacity will be enhanced from 12 MW to 99 MW [6 MW to 65 MW from AFBC and 6 MW to 34 MW from WHRB]. The project site lies at 23^o 36' 52" N Latitude and 86^o 47' 12" E Longitude. The project site is well connected by road and rail. The National Highway NH-2 is about 27 Km away from the existing site. The nearest railway station is Ramkanali, which is about 7.5 km away from the site. Raniganj and Durgapur are the nearest cities where market facilities are available.

3.0 The company has already acquired 177.19 Acres land at Madandih in Bartoria, Purulia, West Bengal in which their existing plant is running and the expansion will be

accommodated in the vacant space of this land. The project essentially aims at installing facilities for the manufacture of 0.5 MTPA steel billets and converts 0.3 MTPA billets to rolled product and balance billets for sale or supply to sister units. The configuration of the existing and the proposed plant is as under:

Sl.No.	Facilities	Configurations			Product	Production	End Use
		Existing	Expansion	Final			
1.	Coal Washery	-	0.74 MTPA	0.74 MTPA	Clean Coal Middlings Rejects	0.33 MTPA 0.28 MTPA 0.05 MTPA	DRI AFBC Sale
2.	Rolling Mill	400 TPD	600 TPD	1,000 TPD	Rolled product	3,00,000 TPA	Sale
3.	Iron Ore Beneficiation	-	0.63 MTPA	0.63 MTPA	Beneficiated IO Tailings	0.394 MTPA 0.236 MTPA	Pellet Sale/ Landfill
4.	Sinter Plant	-	1X20 m ²	1X20 m ²	Sinter	1,98,000 TPA	MBF
5.	Pellet Plant	-	1X1870 TPD	1X1870 TPD	Pellet	5,82,000 TPA	DRI
6.	DRI with Pre-heater	3x100TPD	4x350 TPD	3x100TPD 4x350 TPD	Sponge Iron	5,44,000 TPA	IF
7.	MBF	-	1x350m ³	1x350m ³	Hot metal	2,49,900 TPA	IF
8.	Ferro Alloy Plant	-	2X12 MVA 2X12 MVA	2X12 MVA 2X12 MVA	Fe-Mn Si-Mn	36,608TPA 26,542 TPA	IF
9.	IF with LRF & or AOD	1x8T,2x15T,2x12T,8H	2X35T, 4X25T	1x8T,2x15T 2X35T,4X25T	Billet	5,23,950TPA with Ferro-alloys	Rolling Mill
10.	Oxygen Plant	-	225 m ³	225 m ³	Oxygen		MBF
11.	Lime Plant	-	250 TPD	250 TPD	Calcined Lime	80,000 TPA	DRI/Billet/Sinter
12.	AFBC	6MW	59 MW	65 MW	-	65 MW Power	Internal Use
13.	WHRB	6MW	28 MW	34 MW	-	34 MW Power	Internal Use

The details of raw material required for the plant is presented in the following table.

Sl. No.	Raw Material	Quantity in TPA	Sourcing	Mode of transport
1.	Coke	1,92,871	Local purchase	Road
2.	Coal for Washery	7,76,816	Eastern Coal Field	Rail
3.	Imported Coal	2,60,064	Imported Coal	Ship
4.	Mn ore	1,31,974	MOIL/Odisha	Rail/Road
5.	Dolomite	24,488	Madhya Pradesh	Rail/Road
6.	Iron ore lump	3,49,460	Odisha/Jharkhand	Rail/Road
7.	Iron Ore fines(Pellet plant)	6,00,000	Essel Mining/Sirajjudin & co	Rail/Road
8.	Iron Ore fines(Sinter plant)	1,82,952	Odisha/Jharkhand	Rail/Road
9.	Bentonite	6,000	Import	Ship
10.	Scrap	9,000	In plant generation	Road
11.	Cashing Sheet	265	Local Purchase	Road

4.0 It has been mentioned that in order to control pollution ESPs will be provided with stacks for DRI kilns, Sinter plant and CFBC; Bag filter with stack for IFs, Pellet Plant, Lime Plant and Raw Material Handling Plant (RMHP). It has been proposed to plant about 50,000 local trees @ 10,000 trees per year to develop green belt (with >15,000 trees per ha) to control dust and noise pollution. Zero discharge would be adopted for the plant and 98.5% of water to be cleaned and recycled. The waste water generated will be used in green belt development and dust suppression. The Blast Furnace slag will be sent to the cement plant, the BF sludge to the ceramic plant, fly ash will be sent to the brick kilns, coal washery reject will be sent to briquette making, iron ore tailings for sale for tile making, dolo char will be burnt in AFBC and excess ash will be stored within the plant premises for the period of 2 years. For future storage of iron-ore tailing and excess ash, the proponent will submit the land acquisition details to the Ministry.

5.0 It is estimated that the water requirement for the proposed expansion would be about 559 m³/hr i.e. 13,416 m³/day. The water will be drawn from the Damodar water reservoir in Damodar river, which is 13 km away from project site through DVC in phases. Clearance to draw 0.55 MGD has already been obtained. The total power requirement for the plant is 136.4MW, out of which 99 MW will be sourced from CPP and balance 37.4 MW will be drawn from DVC. The clearance for drawing 50 MW power from DVC grid is in place.

6.0 The Public Hearing for the proposed expansion project was held on 14th October, 2015 at Sampriti Sadan i.e Panchayat Samity Hall in Neturia of Purulia District of West Bengal under the chairmanship of Additional District Magistrate (Development), District Purulia.

7.0 The proposal was considered by the Expert Appraisal Committee (EAC) for Industry-I Sector during its 4th meeting of held on 25th - 26th February, 2016 and 7th meeting held on 30th May to 1st June, 2016 and recommended the project for Environmental Clearance and stipulated Specific Conditions along with other environmental conditions while considering for accord of environmental clearance.

8.0 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 expansion of integrated Steel Plant (from existing 0.074 MTPA Steel Billets to 0.3 MTPA Rolled products and 0.2 MTPA Billet) with captive power plant of 99 MW [65 MW (6 MW existing + 59 MW proposed) from AFBC and 34 MW (6 MW existing + 28 MW proposed) from WHRB] of M/s Shakambhari Ispat and Power Ltd., under the provision of EIA Notification 2006, as amended, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

- i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.
- ii. No dumping is permitted in the abandoned coal mines 2B and 2C in nearby Parbelia Village. The iron ore tailing and excess ash should be stored within the plant premises for the period of 2 years for which land is available. The status of storage of above material shall be periodically reviewed by the regional office for land adequacy and environmental management. For future storage of iron ore tailing and excess ash, beyond the period of 2 years, the proponent will submit the land acquisition details to the Ministry.
- iii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided 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 etc. 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, handling and storage of raw materials etc.
- iv. The ETP for Mini Blast Furnace effluent should be designed to meet Cyanide standard as notified by the MoEFCC.
- v. No effluent shall be discharged outside the plant premises and 'zero' discharge shall be adopted.
- vi. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm³ and installing energy efficient technology.
- vii. 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. The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.
- viii. Efforts shall further be made to use maximum water from the rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling,

dust suppression and green belt development. ETP sludge should be disposed off scientifically.

- ix. All the coal fines, char from DRI plant shall be utilized and no char shall be used for briquette making or disposed off anywhere else. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.
- x. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.
- xi. The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.
- xii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- xiii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
- xiv. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent.
- xv. 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, SPCB and CPCB.
- xvi. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.
- xvii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendments. 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.
- xviii. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.
- xix. Green belt shall be developed in at least 33% of the project area by planting native and broad leaved species in consultation with local DFO and local communities as per the CPCB guidelines.

- xx. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xxi. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xxii. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xxiii. 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.
- xxiv. 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.
- xxv. The project proponent shall provide for LED lights in their offices and residential areas.
- xxvi. 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 (MoEFCC).
- 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 Bhubneswar 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 Bhubneswar. 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 MOEFCC at Bhubneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, SO₂, NO_x (ambient

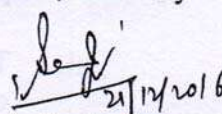
levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

- 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 MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubneswar / 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 MOEFCC at Bhubneswar 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 (MoEFCC) 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 Bhubneswar.
- 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.

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

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

11.0 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 Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.


(Dr. Satish C. Garkoti)
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, 110 032.

3. The Chairman, West Bengal State Pollution Control Board, Paribesh Bhawan, Building No. 10-A, Block- LA, Sector 3, Salt Lake City, Kolkata – 700 091.
4. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandersekharpur, Bhubaneswar – 751023.
5. Guard File / Record File/Monitoring file.

(Dr. Satish C. Garkoti)
Scientist 'F'

ANNEXURE-13



SHAKAMBHARI
GROUP

SHAKAMBHARI ISPAT & POWER LTD.

CIN: U27109WB2001PLC093869 | GSTIN: 19AADC1189L1Z1 | PAN: AADC1189L | State: West Bengal | State Code: 19

o/c

Ref.: SIPL/ES/2018-19

Date : 25th November, 2019

The Sr. Environmental Engineer

West Bengal Pollution Control Board
Asansol Regional Office
ADDA Commercial Market (2nd Floor),
Oppo. Asansol Fire Station,
GT Road, Asansol-713301
Dist-Paschim Burdwan (WB)

Sub: Environment Statement (FY: 2018-2019) of M/s Shakambhari Ispat & Power Limited, Vill-Madandih, PO-Bartoria, Dist-Purulia (WB)-713221

Dear Sir,

With reference to above subject we are submitting the Environment Statement (Form-V) for financial year ending the 31st March, 2019 of M/s Shakambhari Ispat & Power Limited, Vill-Madandih, PO-Bartoria, Dist-Purulia (WB), for your kind consideration please.

Kindly acknowledge our submission

Thanking you,

Yours faithfully,

for Shakambhari Ispat & Power Limited

(Authorized Signatory)



Encl: As above.

Copy to: The Dy. Director General of Forests (Central) Eastern Regional Office, Ministry of Environment Forests & Climate Change, A/3, Chandrashekharpur, Bhubaneswar - 751023 (Odisha)

25/11/19
Received
(Content Not Verified)
West Bengal Pollution Control Board
Asansol Regional Office
2nd Floor ADDA Commercial Market Complex
Opposite Fire Station, Asansol - 713 301



DTDC Express Limited
Regd. Office: No-3, Victoria Road
Bengaluru - 560047

dtcd plus
Premium express priority service

dtcd blue
Express priority service

dtcd green
Track express priority service

ORIGIN: ASM.

DEST: odisha

Non Negotiable Consignment Note / Subject to Bengaluru Jurisdiction.

Please refer to all the terms & conditions printed overleaf of this consignment note before tendering a shipment to DTDC

Plus Pouch Num:

Secure Pack Num:

Date: DD / MM / YY

Sender's Code:

Pick-up Ref Num.:

1 **Sender's (Consignor) Name:** M/S S. Impel 9 Ph: _____
Company Name: power Ltd
Address: _____
City: _____ **State:** _____ **PIN Code:** _____
Sender's GSTIN*: 1384303933 *Where applicable

2 **Recipient's (Consignee) Name:** _____ Ph: _____
Company Name: 10, The Dy 2, Boudo
Address: General of Forest
City: _____ **State:** _____ **PIN Code:** _____
Recipient's GSTIN*: Bhubaneswar 751022 *Where applicable

3 **Nature of consignment** Dox Non-Dox **Total Num Pcs:** _____
DIM 1: L _____ cm X B _____ cm X H _____ cm X _____ Pcs **Actual Wt.:** _____ kg
DIM 2: L _____ cm X B _____ cm X H _____ cm X _____ Pcs **Volumetric Wt.:** _____ kg
DIM 3: L _____ cm X B _____ cm X H _____ cm X _____ Pcs **Chargeable Wt.:** _____ kg

4 **Description of Content** Box **Value of Goods** _____
The Total Value of consignment for carriage / E-Way bill ₹ _____

5 **Risk Coverage:** Owner Carrier


6 **Paper Work Enclosures**

7 **Type of consignment (Please ✓)**
Commercial Non Commercial

8 **Value Added Services (Please ✓)**
SECURE PACK (8.1) PASSPORT (8.2) COD (8.3)
SUNDAY PLUS (8.4) OFFICE COLLECT (8.5)

9 **Charges** **Amount (₹)**
a) Tariff (incl. of FSC + GST) _____
b) Value Added Service Charges 2400
c) Risk Surcharge _____
d) Total amount (a+b+c) _____
Above charges are inclusive of GST & other taxes if applicable
Mode of Payment: Cash Card Wallet

10 **I/We declare that this consignment does not contain cash, jewellery, contraband, illegal drugs, any prohibited items and commodities which can cause safety hazards while transporting. The declared value of goods is true and accurate.**
Sender's Signature
[Signature]
Date: _____ Time: _____ AM/PM

Consignment Number:

V57303808

The consignment note is not a tax invoice. A tax invoice will be made available by DTDC or its channel partner as the case may be, upon request.

11 **Booking Branch / Franchisee Code**

Courier Signature

12 **Receiver's Name:** D. T. D. C.
Relationship: KF 504, G T Road
Company Stamp & Signature: Asansol - 01
Ph No.: 9476471092
Date: / / **Time** AM/PM



dtcd plus
Premium express priority service

Use DTDC Premium Express Product for Time Assured Delivery

dtcd blue
Express priority service

For more info log on to:
<http://www.dtcd.in/subpages/products/DTDCblue.html>