



SHAKAMBHARI  
GROUP

# SHAKAMBHARI ISPAT & POWER LTD.

CIN: U27109WB2001PLC093809 | GSTIN: 19AADC1189L1Z1 | PAN: AADC1189L | State: West Bengal | State Code: 19

Ref: SIPL/SMC/MoEFCC/APR-2020 to SEPT-2020

Date: 08/12/2020

To,  
**The IGF & Incharge**  
GOI, MoEF&CC,  
Integrated Regional Office, Kolkata  
IB-198, Salt Lake City, Sector-III  
Kolkata - 700106

**SUB: Six Monthly (April 2020 to September 2020) Compliance to Environmental Clearance conditions vide MoEFCC F. No. J-11011/201/2013-IA II (I) dated 21.12.2016 and EC amended dated 29<sup>th</sup> April, 2020 by M/s Shakambhari Ispat & 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 2020 to September 2020) of M/s Shakambhari Ispat & 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 along with latest environment monitoring data is enclosed for your kind perusal.

Hard copy of the report has not been sent following MoEFCC Eastern Regional Office direction vide File No. 106-12/EPE Dated 11.05.2020. Hope you will find the same in order.

Kindly acknowledge our submission.

Thanking You.

Yours faithfully,

For **Shakambhari Ispat & Power Limited**

Authorized Signatory

Encl: as above



Copy to:

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

# SIX MONTHLY COMPLIANCE REPORT

April, 2020 – September, 2020



Prepared by:

M/S Shakambhari Ispat & Power Limited  
Village-Madandih, P.O. – Bartoria, P.S-Neturia,  
Dist. – Purulia, Pin-723121, West Bengal



**Six Monthly Compliance Report April, 2020 – September, 2020**

# **SHAKAMBHARI ISPAT & POWER LIMITED**

**COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE**

**MoEFCC F. No.: J-11011/201/2013-IA II (I) Dated: 21.12.2016 and EC  
amended dated 29th April, 2020**

**COMPLIANCE PERIOD:**

**APRIL-2020 TO SEPTEMBER-2020**

## **PROJECT LOCATION:**

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



## Six Monthly EC Compliance Report

<b>Name of the Project</b>	:	<b>Shakambhari Ispat &amp; Power Limited</b> Village-Madandih, PO-Bartoria Dist.-Purulia (WB)
<b>Environmental Clearance F. No.</b>	:	J-11011/201/2013-IA II (I) Date: 21.12.2016 and EC amended dated 29th April, 2020
<b>Period of Compliance Report</b>	:	April 2020 to September 2020

Sl. No.	CONDITIONS	COMPLIANCE STATUS
<b>SPECIFIC CONDITION:</b>		
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 <b>Annexure-1</b> .
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 for 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, SAF 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 <b>Annexure-2</b>
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 recycle and reuse 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 <sup>3</sup> 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 is enclosed as <b>Annexure-1</b>
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 are concreted and concreting of the roads at remaining part of CPP and coal shed area are in progress, some photographs are enclosed as <b>Annexure-3</b> We have already purchased automated road



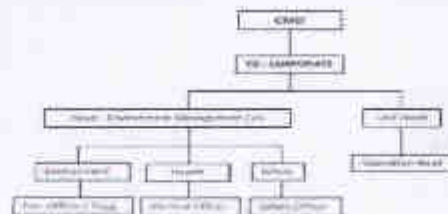
	from the linked coalmines shall be created within the Unit.	sweeping machine and the same is operational. Progressive measures have been undertaken to develop avenue plantation using indigenous species i. e. Mehagani, Segun, Radhachura, Krishnachura, Jarul, Neem, Arjun, Sphodia, Bat, Peepal, Bakul, Conocarpus, Kadam etc. along the plant periphery as well as inside the plant. Some pictures are attached as <b>Annexure-4</b> . 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 <sup>th</sup> November, 2009 shall be followed	It is being followed. Latest Ambient Air Quality Monitoring report is attached as <b>Annexure-5</b>
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 <b>Annexure-2</b>
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 <b>Annexure-6</b> .
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 by NABL accredited laboratory is enclosed as <b>Annexure- 7</b> .
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 <b>Annexure-8</b>.</p> <p>Induction Furnace slag and Bottom Ash are being used for land filling and road construction work.</p>
xvii	<p>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.</p>	<p>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 <b>Annexure-8</b>.</p>
xviii	<p>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.</p>	<p>Complied.</p>
xix	<p>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.</p>	<p>We have undertaken massive plantation program to develop extensive green cover at our establishment by using indigenous species as per guideline. Some pictures of plantation are attached as <b>Annexure-4</b>.</p>
xx	<p>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.</p>	<p>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. distribution of study material to the school students, clothes and blanket distribution to needy people, repairing of school buildings, providing sitting arrangement to the school students. Monetary support for cultural programs in local communities etc. We have dedicated HR &amp; IR personnel to look after the welfare activities and redressing of issues if any.</p>
xxi	<p>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.</p>	<p>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</p>



	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.	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.  SIPL have also the Hierarchical system/ Administrative order to deal with environmental issues and compliance of EC conditions.





		<p>SIPL have in placed reporting system for non compliance / violation of environmental norms.</p> <p style="text-align: center;">Board of Directors</p>
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 installed solar lighting systems in some identified locations and further it is under implementation to cover 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.
<b>GENERAL CONDITIOS:</b>		
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 <b>Annexure -9.</b>
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).	Noted. 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 Regional Office at Bhubaneswar and the SPCB/ CPCB once in six months.	Ambient Air Quality Monitoring being carried on as per direction in consideration of maximum ground level concentration of PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , and NO <sub>x</sub> . Latest Ambient Air Quality monitoring report and stack monitoring report is enclosed as <b>Annexure-5 &amp; Annexure-1.</b>



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 nighttime.	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 <b>Annexure- 10A &amp; Annexure-10B.</b>
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 and FD cooler, 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 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.	Complied. The EC copy is attached as <b>Annexure-11</b> .
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.	It is being complied. Compliance status being periodically uploaded on the company website.  <a href="http://shakambhariispat.com/environmental-compliance">http://shakambhariispat.com/environmental-compliance</a>
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. It is submitted in soft copy only as per direction of Hon'ble MoEF&CC F.NO. 106-12/EPE dated 11.05.2020
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.	It is being complied. The environment statement for financial year 2019-2020 has been submitted to WBPCB in Form-V with copy to Regional Office of the MoEF&CC and the report has been uploaded on the company's website as per direction. Copy of the e-mail is attached as <b>Annexure-12</b> .



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 <a href="http://envfor.nic.in">http://envfor.nic.in</a> . 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.
<b>Additional condition as per EC Amended F. No. J-11011/201/2013-IA.II (I) dated 29<sup>th</sup> April, 2020</b>		
i.	An affidavit ensuring compliance to the non-compliances/partial compliances reported in the monitoring report of the Regional Office dated 18/02/2019 shall be submitted to the Ministry and to the Regional Office of the Ministry at Bhubaneshwar within three months from date of issue of this letter.	Complied. We have already submitted the affidavit following the direction of Hon'ble MoEF&CC. Copy of affidavit along with amended EC enclosed as <b>Annexure-13</b> .



# **Annexure-1**



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO14001:2015 & OHSAS 18001:2007



## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/I	Report No.	: ENV/40/Sep./TR(A)/I/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln No. 1 & 2 (100 TPD each) (attached to common Stack)
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 100 TPD (each)
Emission Due to	: Oxidation of Coal & Reduction of Fe-Ore
Fuel Used	: Coal
Working Fuel Consumption	: Rated – 5.63 MT/hr./Kiln Working – 5.12 MT/hr./Kiln
Pollution Control Device	: W.H.R.B with E.S.P

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 128.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 12.13
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 96037.64
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	: 678.14
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	: 10.6
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 10.6% CO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 23.39
	b) Concentration of Particulate Matter (at 12% CO <sub>2</sub> )			: 26.48

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497490 ■ Fax : 033 25289141  
Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
E-mail : info@envirocheck.org / envirocheck50@gmail.com ■ Website : www.envirocheck.org  
Branch Office : Siliguri ■ Haldia ■ Durgapur ■ Dhanbad ■ Gangtok ■ Port Blair ■ Dehradun ■ New Delhi  
Overseas : UAE ■ Qatar ■ Netherlands



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB  
 Accredited by NABL (ISO/IEC 17025:2017)  
 Certified by ISO 9001:2015, ISO14001:2015 & OHSAS 18001:2007



## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Dist - Purulia(WB)- 723121	Sampling Date	: 25.09.2020
		Period of Analysis	: 30.09.2020 - 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/II	Report No.	: ENV/40/Sep./TR(A)/II/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln No. 3
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 100 TPD
Emission Due to	: Oxidation of Coal & Reduction of Fe-Ore
Fuel Used	: Coal
Working Fuel Consumption	: Rated - 5.63 MT/hr./Kiln Working - 5.12 MT/hr./Kiln
Pollution Control Device	: E.S.P with W.H.R.B

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 129.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.25
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 89638.37
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	: 671.80
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	: 9.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 9.8% CO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 23.31
	b) Concentration of Particulate Matter (at 12% CO <sub>2</sub> )			: 28.54

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497490 ■ Fax: 033 25299141  
 Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
 E-mail : info@envirocheck.org / envirocheck50@gmail.com ■ Website : www.envirocheck.org  
 Branch Office : Siliguri ■ Haldia ■ Durgapur ■ Dhanbad ■ Gangtok ■ Port Blair ■ Dehradun ■ New Delhi  
 Overseas : UAE ■ Qatar ■ Netherlands



# ENVIROCHECK

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## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/III	Report No.	: ENV/40/Sep./TR(A)/III/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: AFBC Boiler
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 1 x 36 TPH (Running – 34 TPH)
Emission Due to	: Oxidation of Coal & Dolochar
Fuel Used	: Coal & Dolochar
Working Fuel Consumption	: Coal – 150 TPD Dolochar – 132 TPD
Pollution Control Device	: E.S.P

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 122.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.28
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 66224.87
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	: 524.85
6.	Concentration of NO <sub>x</sub>	mg/Nm <sup>3</sup>	IS : 11255 (Part 7) 2005 & ASTM D 1608-98 reapproved 2009 : Sec 11 (Vol. 11.07) : 2011	: 289.53
7.	Concentration of CO <sub>2</sub>	% (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 (at 11.6% CO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 21.13
	b) Concentration of Particulate Matter (at 12% CO <sub>2</sub> )			: 21.86

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497480 ■ Fax : 033 25298141  
Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
E-mail : info@envirocheck.org / envirocheck50@gmail.com ■ Website : www.envirocheck.org  
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## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/IV	Report No.	: ENV/40/Sep./TR(A)/IV/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Hood Over Induction Furnace (5 nos.) attached to common stack
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 25 Ton/Heat x 4
Emission Due to	: Melting of Pig Iron, Sponge Iron and Scrap
Fuel Used	: Electrically Operated
Working Fuel Consumption	: Yes
Pollution Control Device	: Bag Filter

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 57.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 10.16
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 25729.74
5.	Concentration of Particulate Matter	mg/Nm <sup>3</sup>	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 14.06

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



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## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/V	Report No.	: ENV/40/Sep./TR(A)/V/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln No. 1 & 2 (attached to common Stack)
Shape of Stack	: Circular
Materials of Construction	: Concrete
Capacity	: 350 TPD x 2
Emission Due to	: Oxidation of Coal & Reduction of Fe-Ore
Fuel Used	: Coal
Working Fuel Consumption	: 13.5 TPH/Kiln
Pollution Control Device	: W.H.R.B with E.S.P

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 160.3
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.01
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 135566.14
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	: 684.50
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	: 11.2
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11.2% CO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 25.16
	b) Concentration of Particulate Matter (at 12% CO <sub>2</sub> )			: 26.96

Remarks : During monitoring both kilns were in operation

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



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## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/VI	Report No.	: ENV/40/Sep./TR(A)/VI/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: CFBC Boiler
Shape of Stack	: Circular
Materials of Construction	: Concrete
Capacity	: 100 TPH
Emission Due to	: Combustion of Coal & Dolochar
Fuel Used	: Coal & Dolochar
Working Fuel Consumption	: Coal – 12.5MT/hr. Dolochar – 8.33 MT/hr.
Pollution Control Device	: E.S.P

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 171.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.05
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 87342.67
5.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	: 12.8
6.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
7.	a) Concentration of Particulate Matter (at 12.8% CO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 20.60
	b) Concentration of Particulate Matter (at 12% CO <sub>2</sub> )			: 19.31

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497480 ■ Fax : 033 25298141  
Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
E-mail : info@envirocheck.org / envirocheck50@gmail.com ■ Website : www.envirocheck.org  
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## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 26.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/VII	Report No.	: ENV/40/Sep./TR(A)/VII/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.1)
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 100 TPH
Emission Due to	: Reduction of Si-Mn Ore
Fuel Used	: N.A. (Electrically Operated)
Working Fuel Consumption	: Nil
Pollution Control Device	: F. D. Cooler and Pulse Jet Bag Filter

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 52.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 6.93
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 57775.55
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	: 110.02
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	: 1.6
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm <sup>3</sup>	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 15.09

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497490 ■ Fax : 033 25298141  
Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
E-mail : info@envirocheck.org / envirocheck50@gmail.com ■ Website : www.envirocheck.org  
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## TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 26.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/VIII	Report No.	: ENV/40/Sep./TR(A)/VIII/20-21

### A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.2)
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 100 TPH
Emission Due to	: Reduction of Si-Mn Ore
Fuel Used	: N.A. (Electrically Operated)
Working Fuel Consumption	: Nil
Pollution Control Device	: F. D. Cooler and Pulse Jet Bag Filter

### B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 76.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 8.7
4.	Quantity of Gas flow	Nm <sup>3</sup> /hr.	IS 11255 (Part III)	: 67513.76
5.	Concentration of SO <sub>2</sub>	mg/Nm <sup>3</sup>	IS 11255 (Part 2) 1985 RA 2003	: 91.82
6.	Concentration of CO <sub>2</sub>	% (v/v)	IS 13270 1992 RA 2003	: 1.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm <sup>3</sup>	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 11.07

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497490 ■ Fax : 033 25298141  
Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
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# **Annexure-2**



# ENVIROCHECK

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## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XII	Report No.	: ENV/40/Sep./TR(A)/XII/20-21		

### A) GENERAL INFORMATION

1. Location of Sampling : Rolling Mill Division (Near Store)
2. Duration of Sampling : 08 hrs. (12:00 p.m. – 08:00 p.m.)

### B) METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 32.0
2. Average Relative Humidity (%) : 76.8
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C) RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SPM	µg/m <sup>3</sup>	NIOSH 0500 : 2005	452.22

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



# ENVIROCHECK

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## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XII	Report No.	: ENV/40/Sep./TR(A)/XII/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Rolling Mill Division (Near Store)
2. Duration of Sampling : 08 hrs. (12:00 p.m. – 08:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 32.0
2. Average Relative Humidity (%) : 76.8
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	9.42
2.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	32.93

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)





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## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XIII	Report No.	: ENV/40/Sep./TR(A)/XIII/20-21		

### A) GENERAL INFORMATION

1. Location of Sampling : Near Control Room (SMS Division)
2. Duration of Sampling : 08 hrs. (05:00 p.m. – 01:00 a.m.)

### B) METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 35.0
2. Average Relative Humidity (%) : 66.6
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C) RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SPM	µg/m <sup>3</sup>	NIOSH 0500 : 2005	489.86

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



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Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001 : 2018



## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XIII	Report No.	: ENV/40/Sep./TR(A)/XIII/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Near Control Room (SMS Division)
2. Duration of Sampling : 08 hrs. (05:00 p.m. – 01:00 a.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 35.0
2. Average Relative Humidity (%) : 66.6
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	10.05
2.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	29.87

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



# ENVIROCHECK

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## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XIV	Report No.	: ENV/40/Sep./TR(A)/XIV/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Infront of MCC Control Room (DRI – 2 x 350 TPD)
2. Duration of Sampling : 08 hrs. (03:00 p.m. – 11:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 34.0
2. Average Relative Humidity (%) : 68.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SPM	µg/m <sup>3</sup>	NIOSH 0500 : 2005	294.22

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



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## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XIV	Report No.	: ENV/40/Sep./TR(A)/XIV/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Infront of MCC Control Room (DRI – 2 x 350 TPD)
2. Duration of Sampling : 08 hrs. (03:00 p.m. – 11:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 34.0
2. Average Relative Humidity (%) : 68.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	8.17
2.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	28.46

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB  
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## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XV	Report No.	: ENV/40/Sep./TR(A)/XV/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Inbetween CPP – 12 MW & DRI – 100 TPD
2. Duration of Sampling : 08 hrs. (02:00 p.m. – 10:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 33.0
2. Average Relative Humidity (%) : 65.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SPM	µg/m <sup>3</sup>	NIOSH 0500 : 2005	258.71

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



# ENVIROCHECK

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Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001 : 2018



## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020
		Period of Analysis	: 30.09.2020 – 01.10.2020
		Date of Issue	: 03.10.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/40/Sep./A/XV	Report No.	: ENV/40/Sep./TR(A)/XV/20-21

### A] GENERAL INFORMATION

1. Location of Sampling : Inbetween CPP – 12 MW & DRI – 100 TPD
2. Duration of Sampling : 08 hrs. (02:00 p.m. – 10:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 33.0
2. Average Relative Humidity (%) : 65.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	7.54
2.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	26.82

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO14001:2015 & OHSAS 18001:2007



## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XVI	Report No.	: ENV/40/Sep./TR(A)/XVI/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Near SAF Control Room (Ferro Alloy Division)
2. Duration of Sampling : 08 hrs. (12:00 p.m. – 08:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 34.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SPM	µg/m <sup>3</sup>	NIOSH 0500 : 2005	260.14

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



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## TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone
Sample ID No.	: ENV/40/Sep./A/XVI	Report No.	: ENV/40/Sep./TR(A)/XVI/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Near SAF Control Room (Ferro Alloy Division)
2. Duration of Sampling : 08 hrs. (12:00 p.m. – 08:00 p.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 34.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	6.91
2.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	25.17

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

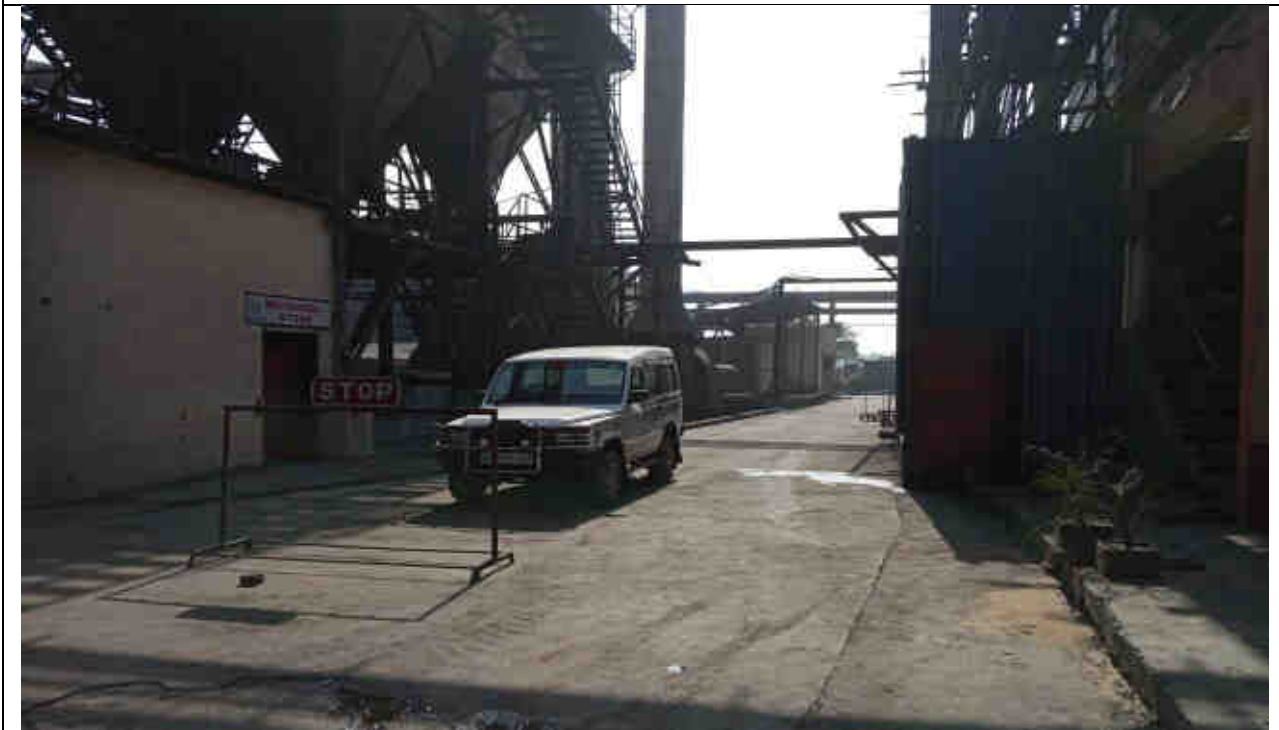
Approved By :

(Dr. Ajoy Paul, Quality Manager)



# **Annexure-3**

**RCC ROAD INSIDE THE PLANT**





# **Annexure-4**

## PLANTATION WITH INDIGENOUS SPECIES







# **Annexure-5**





# ENVIROCHECK

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## TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bortoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020 – 26.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/40/Sep./A/IX	Report No.	: ENV/40/Sep./TR(A)/IX/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Near Security Gate (Southern Side)
2. Duration of Sampling : 24 hrs. (10:00 a.m. – 10:00 a.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 29.0
2. Average Relative Humidity (%) : 85.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Mostly Cloudy

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	52.91
2.	Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	IS 5182 (PART 23) : 2006	89.12
3.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	7.12
4.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	30.03
5.	Concentration of CO	mg/m <sup>3</sup>	IS 5182 (Part 10): 1999 reaffirmed 2005 & ASTM D 3162-94 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	0.28
6.	Concentration of Pb	µg/m <sup>3</sup>	IS 5182 (Part 22) 2004	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	IS 5182 (Part 12) : 2004 & ASTM D 6209-98 reapproved 2004 : Sec. 11 (Vol. 11.07) : 2011	<0.36
8.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	IS 5182 (Part 11) 2006 & ASTM D 5466-01 reapproved 2007 : Sec. 11 (Vol. 11.07) : 2011	<0.74
9.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	IS 5182 (Part-IX) : 1974	<10.0
10.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIOSH Manual of Analytical Method, 4 <sup>th</sup> Edition 1994, Method 6015, issue 2	<4.18
11.	Nickel (Ni)	ng/m <sup>3</sup>	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m <sup>3</sup>	EPA IO 3.2, 1999, APHA 23 <sup>rd</sup> Ed 3114C : 2017	<0.01
13.	Mercury (Hg)	mg/m <sup>3</sup>	EPA IO.5 : 1999	0.026

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497490 ■ Fax : 033 25299141  
 Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
 E-mail : info@envirocheck.org / envirocheck50@gmail.com ■ Website : www.envirocheck.org  
 Branch Office : Siliguri ■ Haldia ■ Durgapur ■ Dhanbad ■ Gangtok ■ Port Blair ■ Dehradun ■ New Delhi  
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## TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020 – 26.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/40/Sep./A/X	Report No.	: ENV/40/Sep./TR(A)/X/20-21		

### 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) : 29.0
2. Average Relative Humidity (%) : 78.8
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Cloudy

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	48.31
2.	Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	IS 5182 (PART 23) : 2006	79.11
3.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	6.50
4.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	26.82

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB  
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Certified by ISO 9001:2015, ISO14001:2015 & OHSAS 18001:2007



## TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020 – 26.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/40/Sep./A/XI	Report No.	: ENV/40/Sep./TR(A)/XI/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Back Side of Captive Power Plant (Western Side)
2. Duration of Sampling : 24 hrs. (11:30 a.m. – 11:30 a.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 29.0
2. Average Relative Humidity (%) : 85.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Mostly Cloudy

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	53.80
2.	Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	IS 5182 (PART 23) : 2006	91.51
3.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	7.96
4.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	29.48

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)



# ENVIROCHECK

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Certified by ISO 9001:2015, ISO14001:2015 & OHSAS 18001:2007



## TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 25.09.2020 – 26.09.2020		
		Period of Analysis	: 30.09.2020 – 01.10.2020		
		Date of Issue	: 03.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/40/Sep./A/XII	Report No.	: ENV/40/Sep./TR(A)/XII/20-21		

### A] GENERAL INFORMATION

1. Location of Sampling : Near Laboratory Building (SMS Division) (Northern Side)
2. Duration of Sampling : 24 hrs. (11:00 a.m. – 11:00 a.m.)

### B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 29.0
2. Average Relative Humidity (%) : 85.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Mostly Cloudy

### C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM <sub>2.5</sub>	µg/m <sup>3</sup>	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	51.2
2.	Concentration of PM <sub>10</sub>	µg/m <sup>3</sup>	IS 5182 (PART 23) : 2006	87.81
3.	Concentration of SO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	6.28
4.	Concentration of NO <sub>2</sub>	µg/m <sup>3</sup>	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	28.46

Remarks :

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

# **Annexure-6**



# ENVIROCHECK

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FORMAT NO. ENV/FM/40

## TEST REPORT

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Nuturia, Dist – Purulia(WB)– 723121	Sampling Date	: 26.09.2020		
		Period of Analysis	: 30.09.2020 – 05.10.2020		
		Date of Issue	: 07.10.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Industrial Effluent Water (Grab)
Location	: Cooling Water Recycle Storage Tank	Sample ID No.	: ENV/18/Sep./W	Report No.	: ENV/18/Sep./TR(W)/20-21

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH value	4500H <sup>+</sup> B APHA 23 <sup>rd</sup> Edition, 2017	-	7.21
2.	Total Suspended Solids	2540 D APHA 23 <sup>rd</sup> Edition, 2017	mg/l	28.0
3.	Oil & Grease	5520 Oil B/D APHA 23 <sup>rd</sup> Edition, 2017	mg/l	2.2
4.	Chemical Oxygen Demand	5200 COD B/C/D APHA 23 <sup>rd</sup> Edition, 2017	mg/l	94.0
5.	Biochemical Oxygen Demand for 3 days at 27°C	5210 BOD B APHA 23 <sup>rd</sup> Edition, 2017	mg/l	15.0

Reviewed By :

(Durbadal Chakraborty, Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul, Quality Manager)

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792891 / 25497490 ■ Fax : 033 25299141  
Laboratory : 189, 190 & 192, Rastraguru Avenue, Kolkata - 700028 ■ Ph. 033 25792889  
E-mail : [Info@envirocheck.org](mailto:Info@envirocheck.org) / [envirocheck50@gmail.com](mailto:envirocheck50@gmail.com) ■ Website : [www.envirocheck.org](http://www.envirocheck.org)  
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# **Annexure-7**



# ENVIROCHECK

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## 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/357/S/M(i)/20-21
4.	Date of sampling	: 26.09.2020
5.	Reporting Date	: 03.10.2020
6.	Type of sample	: E.S.P Bed Ash
7.	Location	: Ash Dumping Yard

Sl. No.	PARAMETERS	METHOD	UNIT	RESULTS
1.	Iron (Fe)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.9 : 1998	mg./l	6.80
2.	Zinc (Zn)	EPA 1311 : 1992 APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg./l	2.50
3.	Copper (Cu)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.6 : 1998	mg./l	1.20
4.	Nickel (Ni)	EPA 1311 : 1992 APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg./l	0.80
5.	Lead (Pb)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.9 : 1998	mg./l	0.50
6.	Cadmium (Cd)	EPA 1311 : 1992 EPA 3050 B, 1996/IS 3050 (Part 46)	mg./l	<0.002

Authorised Signatory :

DR. AJOY PAUL  
Scientist





# ENVIROCHECK

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Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001 : 2018



## 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/357/S/M(ii)/20-21
4.	Date of sampling	: 26.09.2020
5.	Reporting Date	: 03.10.2020
6.	Type of sample	: Slag
7.	Location	: SMS Slag

Sl. No.	PARAMETERS	METHOD	UNIT	RESULTS
1.	Iron (Fe)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.9 : 1998	mg./l	8.50
2.	Zinc (Zn)	EPA 1311 : 1992 APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg./l	6.20
3.	Copper (Cu)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.6 : 1998	mg./l	4.80
4.	Nickel (Ni)	EPA 1311 : 1992 APHA 23 <sup>rd</sup> Ed., 3111 B : 2017	mg./l	1.80
5.	Lead (Pb)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.9 : 1998	mg./l	1.10
6.	Cadmium (Cd)	EPA 1311 : 1992 EPA 3050 B, 1996/IS 3050 (Part 46)	mg./l	<0.002

Authorised Signatory :

DR. AJOY PAUL  
Scientist

# **Annexure-8**

# **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, 8<sup>th</sup> 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 Agarwal

Ayush Agarwal

Witness No. 2: Sunil Das

# **Annexure-9**

# 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(Prl)/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.)



## 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	<b>Billets</b>	<b>16600 MT</b>
02	<b>Electricity</b>	<b>29 MW</b>
03	<b>Sponge Iron</b>	<b>9000 MT</b>
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.....



(4)

Consent to M/s. Shakambhari Isdat & Power Ltd.  
for its unit at Vill- Madandih, P.O..Barteria, 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 <sup>3</sup> /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm <sup>3</sup> )	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.**

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

for its unit at Vill- Madandih, P.O. Barteria, P.S. Meturia, 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 GPP
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 06 p.m.)	65
Night Time (07 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.: 20110135.....

**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 <sup>3</sup> /hr)	Velocity of gas emission (m / sec)	Concentrations of parameters not to exceed		Frequency of emission sampling
					SPM (mg/ Nm <sup>3</sup> )	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.: 20110135

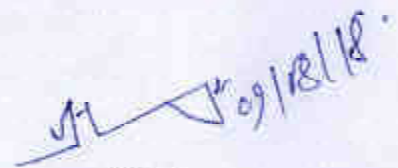
WEST BENGAL POLLUTION CONTROL BOARD  
Paribesh Bhawan; Bldg. No.-10A, Block - L.A., Sector - III  
Salt Lake City, Kolkata - 700 106

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

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-1.
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 **C0107584**

Memo Number **582-2S-CO-S/11/0069**

**Expansion**

Date **06.12.2018**

## Consent to Operate

under **Application no. C00000000207553**

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	<b>Billet</b>	<b>56320 TPA</b>
02	<b>Sponge Iron</b>	<b>224000 TPA</b>
03	<b>Captive Power</b>	<b>40 MW</b>
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.

*[Signature]* 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 <sup>3</sup> /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm <sup>3</sup> )	CO (% v/v)			
S-1									
S-2									
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.)



Consent to ..... **Shakambhari Ispat & Power Ltd.,**  
 for its unit at ..... **Vill: Madanah, 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 <sub>eq</sub>
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  
 Kankinara, 24 Parganas (N), Pin – 743 126  
 Special Condition

Annexure to Consent to Operate Letter Number: CO107584 of M/s. Shakambhartsyal & Power Ltd located at the existing unit at Vill. Madandi, P.O. Baroia, P.S. Neturia, Dist. Purulia, PIN- 723121

1. Conditions mentioned in the Environmental Clearance issued by MOEF vide No. J-11D11/201/2013 – 1A-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 15/03/2017 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-I

Sl.No.	Stack height from GL (in mts.)	Stack attached to (Source & control system, if any)	Volume Nm <sup>3</sup> /hr	Velocity of gaseous emission (m/sec)	Concentration of parameters not to exceed					Frequency of sampling
					SPM (mg/Nm <sup>3</sup> )	CO (ppm)	SO <sub>2</sub> (mg/Nm <sup>3</sup> )	NO <sub>x</sub> (mg/Nm <sup>3</sup> )	Mercury (Mg/Nm <sup>3</sup> )	
S-1	92.0	AFBC Boiler (1x100TPH)	-	-	30.0	-	100.0	100.0	0.03	Quarterly
S-2	72.0	DR Mill (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	1-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.

*Kumud Khatun*  
 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-AB-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 Tapat & 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. - Bantoria, 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.)

Abhadi  
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	<u>M. S. Billets</u>	<u>1,06,800 TPA</u>
02	<u>TMT bars/wire</u>	<u>1,80,000 TPA</u>
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.)

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



(4)

Consent to M/s. Shakambhari Ispat & Power Limited.  
 for its unit at Vill: Madandih, P.O. - Bantoria, 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 <sup>3</sup> /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed					Frequency of emission sampling
					SPM (mg/Nm <sup>3</sup> )	CO (%v/v)				
S-1	30	1X25 MT/heat production 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										

*Atarshi*  
 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 Limitedfor 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			Production.
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.)

Atardi  
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.)

*Atanick*  
*06/09/19*  
**Environmental Engineer**  
**W. B. Pollution Control Board**  
**Operation & Execution 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

# WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan'

Bldg. No. - 10A, Block - LA, Sector-III

Salt Lake City, Kolkata-700 098



Consent Letter Number : CO128922

Memo Number : 185-as-co-8/11/0064

Date : 13/02/2020

## 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, hereby grants its consent to :

M/s. Shakambhari Steel & Iron Works Limited  
**WEST BENGAL**

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

Madandih, P.O. - Barbaria, Nalanda, Dist - Purulia,

Pin - 723124

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

to operate the industrial unit and to discharge liquid effluent and gaseous effluent from the premises/land of the industrial unit, in accordance with the conditions 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.)

W. B. Pollution Control Board  
13/02/20

(2)

ANNEXURE

Consent to M/s. Shakambhari Dept & Power Limited.  
for its unit at Vill: Madandih, P.O. - Bacteria, P.S. - Nataria,  
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	<u>M.S. Billet</u>	<u>4700.00 MT</u>
02		
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 5.0 ..... KL.
05. Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed ..... 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-1 in page 03.

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

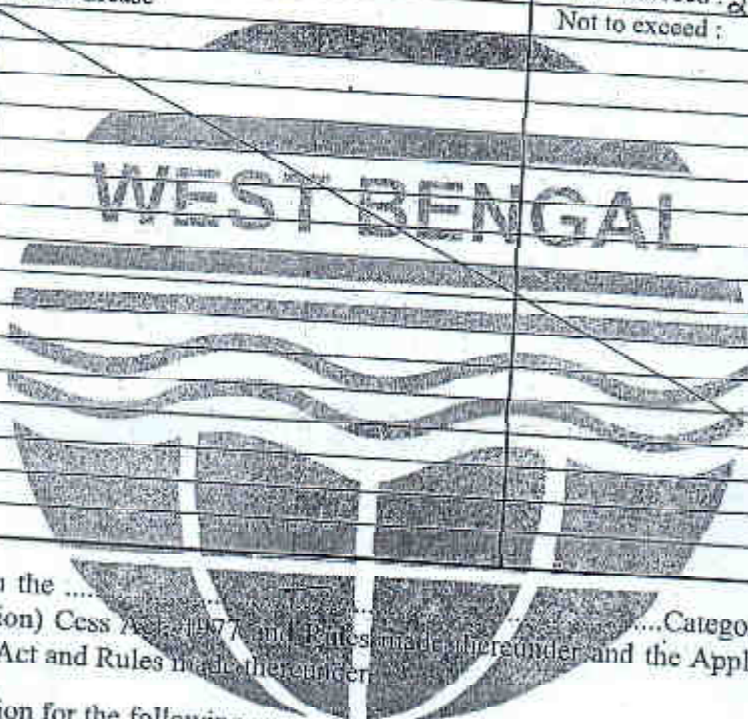
Ataradi  
13/02/20  
Environmental Engineer  
W. B. Pollution Control Board  
Operation & Execution Cell

C0128922

Consent to M/s. Shakambhari Tspal 2 Power Limited<sup>(3)</sup>  
 for its unit at Villi Madandih, P.O. - Bastoria, P.S. - Neturia,  
Dist- Purulia, Pin-723121.

Table-I

Outlet No.	Nature of effluent	Parameters	Standard	Frequency of effluent sampling
01	Domestic	pH		Yearly
		Total Suspended Solids	Between: 5.5 to 9.0	
		Biochemical Oxygen Demand (3day at 27°C)	Not to exceed: 100 mg/l.	
		Chemical Oxygen Demand	Not to exceed: 30 mg/l.	
		Oil & Grease	Not to exceed: 250 mg/l.	
			Not to exceed: 10 mg/l.	



09. The Applicant falls in the ..... Category of the Water (Prevention and Control of Pollution) Cess Act, 1977 and Rules made thereunder and the Applicant shall comply with the provisions of the said Act and Rules made thereunder.

10. Daily water consumption for the following purposes should not exceed :-

- Industrial cooling, spraying in mine pits and boiler feed water → 60.0 ..... KL  
 (Water used for gardening should be included in this category of use)
- Domestic purpose → 5.0 ..... KL
- Processing whereby water gets polluted and the pollutants are easily biodegradable → ..... KL
- Processing whereby water gets polluted and the pollutants are not easily biodegradable → ..... KL

The Applicant shall regularly submit to the Board the Returns of Water Consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

(Member Secretary/Chief Engr./Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)  
 Environmental Engineer  
 W. B. Pollution Control Board  
 Operation & Maintenance

*Manda*  
 12/02/25

Consent to M/s. Shakambhari Ispat & Power Limited  
 for its unit at Villi Madandih, P.O. - Bantaria, P.S. - Netunia,  
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 of gas emission (Nm <sup>3</sup> /hr)	Velocity of gas emission (m/sec)	Concentrations of parameters not to exceed		Frequency of emission sampling
					SPM (mg/Nm <sup>3</sup> )	CO <sub>2</sub> (%)	
S-1	30m existing	01 no. Industrial furnace (25 Tonnes/hr) existing AP & D (bag filter)			50	1	
S-2							
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.)

*M. Mondal*  
 13/02/20  
 Environmental Engineer  
 W. B. Pollution Control Board  
 Operation & Execution Cell

Continued.....

CV125722

(5)

Consent to M/s. Shakambhari Tspal & Power Limited,

for its unit at Vill: Madandih, P.O. - Bantonig, 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	—	1X25 MT/heat Induction.
02			
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	825 MT/Month		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 <sub>eq</sub>
Day Time (06 am to 09 pm)	75
Night Time (09 pm to 06 am)	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.)

Mardi  
12/02/20  
Environmental Engineer  
W. B. Pollution Control Board  
Operation & Execution Cell

Continued.....

Consent to M/s. Shakambhari Paper & Power Limited  
 for its unit at Villi Madandih, P.O. - Bantoria, 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 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 use of ground water 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.

*M. Anandi*  
 13/02/20



Annexure to Consent Letter Number – CO128922

Additional Conditions issued to M/s. Shakambhari Ispat & Power Limited at existing factory premises - Vill- Madandih, P.O-Bartoria, P.S-Neuria, 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(Pr/Cont(81)/2002Part-III dated 30/07/2019 & 805-WPBA/Red(Pr/Cont(81)/2002 Part-III dated 07/02/2020.
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 8<sup>th</sup> Induction Furnace- 1x25 Ton/batch for manufacturing of M.S.Billets-4700 MT/Month.

*Atarshi*  
*12/02/20*  
Environmental Engineer  
West Bengal Pollution Control Board  
Environmental Engineer  
W. B. Pollution Control Board  
Operation & Execution Cell

"Expansion"

# WEST BENGAL POLLUTION CONTROL BOARD

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



Consent Letter Number: CO128973

Memo Number: 281-WPBA/Reg(Poll)/Cont(82)/02-PT-VI

Date: 14/08/2020

## 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 Dept. & Power Ltd.

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

(hereinafter referred to as Applicant) for its unit located at Vill: Madandih, P.O. - Bantaria,  
P.S. - Nalbaria, 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.)

14/08/20  
Environmental Engineer  
W. B. Pollution Control Board  
Operation & Execution Cell

## ANNEXURE

Consent to M/s. Shakambhari Ispat & Power Ltd.for its unit at Vill: Madandih, P.O. - Bantonia, P.S. - Nethuria,Disto 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	9700 MT/Month
02	Ferro Manganese	3050 MT/Month
03	Silico Manganese	2210 MT/Month
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 3.0 ..... KL.

05. Daily discharge of mixed (industrial &amp; domestic) liquid effluent shall not exceed ..... KL.

06. The Applicant shall discharge liquid effluent to Septic Tank ..... (place of discharge)  
through 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. Envy. Engr. / Env. Engr. / Asst. Env. Engr.)

*Atkurdi*  
14/08/20  
Environmental Engineer  
W. B. Pollution Control Board  
Operation & Execution Cell




Consent to M/S. Shakambhari Diesel & Power Ltd.  
 for its unit at Vill: Madandih, P.O. - Bantonia, 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: *See Annexure-I*

Table-II

Stack No.	Stack height from G.L. (in mts.)	Stack attached to (sources and control system, if any):	Volume Nm <sup>3</sup> /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed			Frequency of emission sampling
					SPM (mg/Nm <sup>3</sup> )	CO (%v/v)		
S-1								
S-2								
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.)  
**Environmental Engineer**  
**W. B. Pollution Control Board**  
**Operation & Execution Cell**

CO 128973

(5)

Consent to M/s. Shakambhari Ispat & Power Ltd.  
 for its unit at Vill: Madandih, P.O. - Bastoria, P.S. - Natunia  
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			
02			
03			
04			
05			

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

Type of waste	Quantity	Treatment	Disposal

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 <u>10</u> p.m.)	65
Night Time ( <u>10</u> 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.)

Harsh  
14/08/20  
 Environmental Engineer  
 W. B. Pollution Control Board  
 Operation & Execution Cell

Consent to M/s. Shakambhari Paper & Power Ltd.  
 for its unit at Vill: Madandih, P.O. - Bastonia, P.S. - Aeturia,  
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 *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 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 - III.

(Member Secretary/Chief Engr./Sr. Env. Engr. / 14/08/20  
 Environmental Engineer  
 W. B. Pollution Control Board  
 Operation & Execution Cell





Annexure - II

Annexure to Consent Letter Number - CO128973

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

Type of waste	Quantity	Treatment	Disposal
Ferro Manganese Slag	3050 MT/month	-	Reuse in process
Induction Furnace Slag	1464 MT/month	-	Disposal to Iron recovery unit
Silico Manganese Slag	2210 MT/month	-	Land filling
MS Scrap	775 MT/month	-	Reuse in process
Dust from SEAF de-dusting unit	88 MT/month	-	Reuse in process
Dust from IF de-dusting unit	12 MT/month	-	Land filling

*Wanda*  
14/08/20

Environmental Engineer  
West Bengal Pollution Control Board

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

**Annexure-III**

Annexure to Consent Letter Number – CO128973

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 should obtain all the statutory licenses as applicable from other concerned Govt. Department.
3. The unit shall construct the concrete road around raw material handling area within 4 months.
4. The unit shall minimized fugitive emission at emission sources and working areas.
5. This consent may be revoked at any time on violation of environmental norms.
6. The unit shall submit a status of compliance of the conditions stipulated in EC.
7. The unit shall develop greenbelt at least 33% of the total plant area.
8. This consent to Operate is valid for operation of newly installed Induction Furnaces(2x25 Ton/batch) for manufacturing of M.S.Billets-9700 MT/Month and Submerged Electric Arc Furnaces(2x9MVA) for manufacturing Ferro Manganese-3050 MT/month & Silico Manganese-2210 MT/month.

*Abir*  
*14/08/20*

**Environmental Engineer**  
**West Bengal Pollution Control Board**

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

Expansion

# WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan'

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



Consent Letter Number: C.O.128998

Memo Number: 335-WPBA/Red (Pn1)/cont(82)/02 Pt-VI

Date: 13/11/2020

## 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 Dept. & Power Limited.

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

(hereinafter referred to as Applicant) for its unit located at existing unit premises in  
Vill:- Madandih, P.O.-Bantania, 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.)

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

## ANNEXURE

Consent to M/s. Shaktambhari Dept. & Power Limited  
 for its unit at Villi Madandih, P.O. - Bantania, 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	TMT bars/wires	1,20,000 TPA
02	(Rolling Mill - 400 TPD)	
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 recycled ..... KL.
04. Daily discharge of domestic liquid effluent shall not exceed 1.8 ..... KL.
05. Daily discharge of mixed (industrial & domestic) liquid effluent shall not exceed ..... KL.
06. The Applicant shall discharge liquid effluent to Septic tank to soakpit (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. Engr. / Env. Engr. / Asst. Env. Engr.)

Harsh  
12/11/20  
 Environmental Engineer  
 W. B. Pollution Control Board  
 Operation & Execution Cell



(4)

Consent to M/s. Shakambhari Ispat & Power Limited  
for its unit at Villi Madandih, P.O. - Bastoria, 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 <sup>3</sup> /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm <sup>3</sup> )	CO (%v/v)			
S-1		<i>As per existing arrangement.</i>							
S-2									
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.)

*Handwritten: 13/11/20*

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

C0128998

(5)

Consent to M/s. Shakambhari Ispat & Power Limited  
for its unit at Vill: Madandih, P.O. - Bantania, 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			
02			
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

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.)

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

Consent to M/s. Shakambhari Ispat & Power Limited  
 for its unit at Vill: Madansih, P.O - Bastoria, 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 *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 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

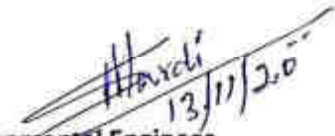
(Member Secretary-Chief-Engr.-Sr. Env.-Engr. / Env. Engr. / Asst. Env. Engr.)  
 Environmental Engineer  
 W. B. Pollution Control Board  
 Operation & Execution Cell



**Annexure to Consent Letter Number – CO128998**

**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 should obtain all the statutory licenses as applicable from other concerned Govt. Department.
3. This consent may be revoked at any time on violation of environmental norms.
4. The unit shall submit a status of compliance of the conditions stipulated in EC.
5. This consent to Operate is valid for operation of enhancement of capacity of Rolling Mill from 600TPD to 1000 TPD without oil fired reheating furnace by directly charging the hot billets.

  
Environmental Engineer  
West Bengal Pollution Control Board

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

# **Annexure-10A**



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & OSPCB  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO 14001 : 2015 & OHSAS 18001:2007



FORMAT NO. : ENV/FM/58

## TEST REPORT

1.	Name of the Industry / Project	: Shakambhari Ispat& Power Limited.
2.	Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
3.	Type of Industry	: Steel & Power Unit
4.	Sampling Plan & Procedure	: ENV/SOP/01
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/11/Sep/N
8.	Report ID	: ENV/11/Sep/N/I/20-21
9.	Date of Study	: 25/09/2020
10.	Reporting Date	: 03/10/2020
11.	Method No.	: IS: 9989 - 1981
12.	Time of Duration of Noise	: 20 Minutes
13.	Height from Ground Level	: 4 feet
14.	Sample Monitoring by	: Mr. Biswajit Dey

### RESULT OF NOISE LEVEL STUDY

Time :12:00 - 12:20 P.M

### DAY TIME

#### 1. Location : Near Store (Rolling Mill Division)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	82.8	84.9	83.98	East Side
02.	dB(A)	83.2	85.1	84.25	West Side
03.	dB(A)	82.7	84.5	83.69	North Side
04.	dB(A)	82.1	84.3	83.34	South Side
Average dB(A) Leq				83.81	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & OSPCB  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO 14001 : 2015 & OHSAS 18001:2007



FORMAT NO. : ENV/FM/58

## TEST REPORT

1.	Name of the Industry / Project	: Shakambhari Ispat& Power Limited.
2.	Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
3.	Type of Industry	: Steel & Power Unit
4.	Sampling Plan & Procedure	: ENV/SOP/01
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/11/Sep/N
8.	Report ID	: ENV/11/Sep/N/II/20-21
9.	Date of Study	: 25/09/2020
10.	Reporting Date	: 03/10/2020
11.	Method No.	: IS: 9989 - 1981
12.	Time of Duration of Noise	: 20 Minutes
13.	Height from Ground Level	: 4 feet
14.	Sample Monitoring by	: Mr. Biswajit Dey

### RESULT OF NOISE LEVEL STUDY

Time :12:30 - 12:50 P.M

### DAY TIME

#### 2. Location : Near Control Room of SMS Division

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	80.5	83.7	82.39	East Side
02.	dB(A)	81.2	84.3	83.02	West Side
03.	dB(A)	80.9	83.7	82.52	North Side
04.	dB(A)	79.9	84.0	82.42	South Side
Average dB(A) Leq				82.58	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & OSPCB  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO 14001 : 2015 & OHSAS 18001:2007



FORMAT NO. : ENV/FM/58

## TEST REPORT

1.	Name of the Industry / Project	: Shakambhari Ispat& Power Limited.
2.	Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
3.	Type of Industry	: Steel & Power Unit
4.	Sampling Plan & Procedure	: ENV/SOP/01
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/11/Sep/N
8.	Report ID	: ENV/11/Sep/N/III/20-21
9.	Date of Study	: 25/09/2020
10.	Reporting Date	: 03/10/2020
11.	Method No.	: IS: 9989 - 1981
12.	Time of Duration of Noise	: 20 Minutes
13.	Height from Ground Level	: 4 feet
14.	Sample Monitoring by	Mr. Biswajit Dey

### RESULT OF NOISE LEVEL STUDY

Time : 1:00 - 1:20 P.M

### DAY TIME

3. Location : In front of MCO Control Room (DRI - 350 TPD X 2)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	78.5	81.3	80.12	East Side
02.	dB(A)	79.0	82.0	80.75	West Side
03.	dB(A)	78.9	82.6	81.13	North Side
04.	dB(A)	79.4	81.9	80.83	South Side
Average dB(A) Leq				80.70	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & OSPCB  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO 14001 : 2015 & OHSAS 18001:2007



FORMAT NO. : ENV/FM/58

## TEST REPORT

1.	Name of the Industry / Project	: Shakambhari Ispat& Power Limited.
2.	Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
3.	Type of Industry	: Steel & Power Unit
4.	Sampling Plan & Procedure	: ENV/SOP/01
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/11/Sep/N
8.	Report ID	: ENV/11/Sep/N/IV/20-21
9.	Date of Study	: 25/09/2020
10.	Reporting Date	: 03/10/2020
11.	Method No.	: IS: 9989 - 1981
12.	Time of Duration of Noise	: 20 Minutes
13.	Height from Ground Level	: 4 feet
14.	Sample Monitoring by	Mr. Biswajit Dey

### RESULT OF NOISE LEVEL STUDY

Time :1:30 - 1:50 P.M

### DAY TIME

#### 4. Location : In between CPP - 12 MW and DRI - 100 TPD Area

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	79.1	81.2	80.28	East Side
02.	dB(A)	79.2	80.9	80.13	West Side
03.	dB(A)	79.9	81.4	80.71	North Side
04.	dB(A)	80.1	81.6	80.91	South Side
Average dB(A) Leq				80.50	

Reviewed By:

  
Dy. Quality Manager

Approved By:

  
Quality Manager

>End of Report<



# ENVIROCHECK

Recognised by MoEF&CC, WBPCB, JSPCB & OSPCB  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO 14001 : 2015 & OHSAS 18001:2007



FORMAT NO. : ENV/FM/58

## TEST REPORT

1.	Name of the Industry / Project	: Shakambhari Ispat& Power Limited.
2.	Address	: Vill. - Madandih, P.O - Bartoria, P.S - Nuturia, District - Purulia, Pin - 723121
3.	Type of Industry	: Steel & Power Unit
4.	Sampling Plan & Procedure	: ENV/SOP/01
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/11/Sep/N
8.	Report ID	: ENV/11/Sep/N/V/20-21
9.	Date of Study	: 25/09/2020
10.	Reporting Date	: 03/10/2020
11.	Method No.	: IS: 9989 - 1981
12.	Time of Duration of Noise	: 20 Minutes
13.	Height from Ground Level	: 4 feet
14.	Sample Monitoring by	Mr. Biswajit Dey

### RESULT OF NOISE LEVEL STUDY

Time :2:00 - 2:20 P.M

### DAY TIME

5. Location : Near SAF Control Room (Ferro Alloy Division)

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	80.7	84.8	83.22	East Side
02.	dB(A)	81.2	85.5	83.86	West Side
03.	dB(A)	81.4	84.9	83.49	North Side
04.	dB(A)	80.9	85.2	83.56	South Side
Average dB(A) Leq				83.53	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<

# **Annexure-10B**



**NOISE MONITORING REPORT**  
**Shakambhari Ispat & Power Limited**

**VIII. – Madandih, P.O – Bartoria, P.S – Nuturia, District – Purulia, Pin – 723121**

**MONITORED BY :**

ENVIROCHECK  
 189, Rastraguru Avenue,  
 Calcutta - 700 028

Report No : 66/EC/M/N/I/20-21

Sampling Locations :	Near Security Gate – Southern Side	Date of Study :	25/09/2020
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	70.6	72.2	71.47	73.79
7:00 AM to 8:00 AM	71.5	74.3	73.12	
8:00 AM to 9:00 AM	70.8	72.1	71.50	
9:00 AM to 10:00 AM	74.3	77.5	76.19	
10:00 AM to 11:00 AM	73.9	77.2	75.86	
11:00 AM to 12:00 PM	72.3	75.8	74.39	
12:00 PM to 1:00 PM	74.0	77.9	76.37	
1:00 PM to 2:00 PM	71.2	74.5	73.16	
2:00 PM to 3:00 PM	70.4	74.3	72.77	
3:00 PM to 4:00 PM	74.2	76.7	75.63	
4:00 PM to 5:00 PM	71.3	75.4	73.82	
5:00 PM to 6:00 PM	72.3	77.2	75.41	
6:00 PM to 7:00 PM	68.2	75.9	73.57	
7:00 PM to 8:00 PM	67.5	72.3	70.53	
8:00 PM to 9:00 PM	66.2	70.4	68.79	
9:00 PM to 10:00 PM	65.1	69.9	68.13	

Date of Study :	25/09/2020 to 26/09/2020	Night time :	10 PM to 6 AM
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Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	60.4	63.5	62.22	62.08
11:00 PM to 12:00 AM	59.9	62.1	61.14	
12:00 AM to 1:00 AM	59.4	60.9	60.21	
1:00 AM to 2:00 AM	58.1	62.7	60.98	
2:00 AM to 3:00 AM	57.9	63.5	61.55	
3:00 AM to 4:00 AM	56.8	64.6	62.26	
4:00 AM to 5:00 AM	60.2	64.1	62.57	
5:00 AM to 6:00 AM	63.3	65.2	64.35	

L<sub>min</sub> : Minimum Noise level

L<sub>max</sub> : Maximum Noise level

L<sub>eq</sub> : Equivalent sound energy

Compiled by : (Signature)  
 Dr. Ajoy Paul

Envirocheck Seal  
 Date : 03/10/2020



Certified by : (Signature)  
 Dr. S. B. Chowdhury

**NOISE MONITORING REPORT**  
**Shakambhari Ispat & Power Limited**  
**Vill. – Madandih, P.O – Bartoria, P.S – Nuturia, District – Purulia, Pin – 723121**

**MONITORED BY :**  
 ENVIROCHECK  
 189, Rastraguru Avenue,  
 Calcutta - 700 028

Report No : 66/EC/M/N/II/20-21

Sampling Locations :	Madandih Village (0.5 km from Plant) – Eastern Side	Date of Study :	25/09/2020
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	40.2	51.6	48.89	54.16
7:00 AM to 8:00 AM	43.7	52.3	49.85	
8:00 AM to 9:00 AM	44.9	51.2	49.10	
9:00 AM to 10:00 AM	46.4	55.9	53.35	
10:00 AM to 11:00 AM	49.4	56.3	54.10	
11:00 AM to 12:00 PM	48.1	55.3	53.05	
12:00 PM to 1:00 PM	51.2	58.3	56.06	
1:00 PM to 2:00 PM	52.1	59.6	57.30	
2:00 PM to 3:00 PM	53.5	59.2	57.22	
3:00 PM to 4:00 PM	52.8	59.6	57.41	
4:00 PM to 5:00 PM	51.6	59.2	56.89	
5:00 PM to 6:00 PM	50.9	58.3	56.02	
6:00 PM to 7:00 PM	43.7	55.8	53.05	
7:00 PM to 8:00 PM	40.7	50.6	48.01	
8:00 PM to 9:00 PM	41.9	44.7	42.98	
9:00 PM to 10:00 PM	44.7	48.6	46.68	

Date of Study :	25/09/2020 to 26/09/2020	Night time :	10 PM to 6 AM
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Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	42.5	46.2	44.73	43.90
11:00 PM to 12:00 AM	41.6	43.5	42.65	
12:00 AM to 1:00 AM	39.9	40.8	40.37	
1:00 AM to 2:00 AM	38.6	40.2	39.47	
2:00 AM to 3:00 AM	39.9	41.5	40.77	
3:00 AM to 4:00 AM	41.6	45.9	44.26	
4:00 AM to 5:00 AM	43.8	47.5	46.03	
5:00 AM to 6:00 AM	44.3	48.6	46.96	

L<sub>min</sub> : Minimum Noise level      L<sub>max</sub> : Maximum Noise level      L<sub>eq</sub> : Equivalent sound energy

Compiled by : (Signature)  
 Dr. Ajoy Paul

Envirocheck Seal  
 Date : 03/10/2020



Certified by : (Signature)  
 Dr. S. B. Chowdhury

**NOISE MONITORING REPORT**  
**Shakambhari Ispat & Power Limited**  
**Vill. – Madandih, P.O – Bartoria, P.S – Nuturia, District – Purulia, Pin – 723121**

**MONITORED BY :**  
 ENVIROCHECK  
 189, Rastraguru Avenue,  
 Calcutta - 700 028

Report No : 66/EC/M/N/III/20-21

Sampling Locations :	Near Power Plant Control Room – Western Side	Date of Study :	25/09/2020
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	63.5	73.6	70.99	72.43
7:00 AM to 8:00 AM	65.9	75.8	73.21	
8:00 AM to 9:00 AM	66.1	75.6	73.05	
9:00 AM to 10:00 AM	65.9	73.8	71.44	
10:00 AM to 11:00 AM	67.2	75.5	73.09	
11:00 AM to 12:00 PM	68.2	74.6	72.49	
12:00 PM to 1:00 PM	68.5	75.7	73.45	
1:00 PM to 2:00 PM	69.1	74.9	72.90	
2:00 PM to 3:00 PM	67.9	78.7	76.04	
3:00 PM to 4:00 PM	66.1	76.4	73.78	
4:00 PM to 5:00 PM	65.9	72.8	70.60	
5:00 PM to 6:00 PM	64.7	72.1	69.82	
6:00 PM to 7:00 PM	64.9	68.6	65.96	
7:00 PM to 8:00 PM	63.9	70.8	65.15	
8:00 PM to 9:00 PM	65.1	73.5	71.08	
9:00 PM to 10:00 PM	68.9	76.7	74.36	

Date of Study :	25/09/2020 to 26/09/2020	Night time :	10 PM to 6 AM
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Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	65.4	70.5	68.66	68.62
11:00 PM to 12:00 AM	63.1	73.8	71.14	
12:00 AM to 1:00 AM	60.5	69.9	67.36	
1:00 AM to 2:00 AM	59.9	64.3	62.63	
2:00 AM to 3:00 AM	59.1	62.5	61.12	
3:00 AM to 4:00 AM	60.9	68.7	66.36	
4:00 AM to 5:00 AM	65.8	71.2	69.29	
5:00 AM to 6:00 AM	66.7	74.5	72.16	

L<sub>min</sub> : Minimum Noise level

L<sub>max</sub> :Maximum Noise level

L<sub>eq</sub> :Equivalent sound energy

Compiled by : (Signature)  
 Dr. Ajoy Paul

Envirocheck Seal  
 Date : 03/10/2020



Certified by : (Signature)  
 Dr. S. B. Chowdhury



# ENVIROCHECK

Recognized by MoEF&CC, WPCB, SPCC & OSPCC  
Accredited by NABL (ISO/IEC 17025:2017)  
Certified by ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007



## NOISE MONITORING REPORT

### Shakambhari Ispat & Power Limited

Vill. – Madandih, P.O – Bartoria, P.S – Nuturia, District – Purulia, Pin – 723121

**MONITORED BY :**

ENVIROCHECK

189, Rastraguru Avenue,  
Calcutta - 700 028

Report No : 66/EC/M/N/IV/20-21

Sampling Locations :	Near Laboratory Building (SMS Division) – Northern Side	Date of Study :	25/09/2020
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Day time L <sub>eq</sub>
6:00 AM to 7:00 AM	68.2	74.6	72.49	71.29
7:00 AM to 8:00 AM	66.7	70.8	68.35	
8:00 AM to 9:00 AM	66.2	73.5	71.23	
9:00 AM to 10:00 AM	67.9	78.6	75.94	
10:00 AM to 11:00 AM	66.1	73.8	71.47	
11:00 AM to 12:00 PM	67.2	76.9	74.33	
12:00 PM to 1:00 PM	64.7	72.1	69.82	
1:00 PM to 2:00 PM	64.9	68.6	65.96	
2:00 PM to 3:00 PM	63.9	70.8	65.15	
3:00 PM to 4:00 PM	65.1	73.5	71.08	
4:00 PM to 5:00 PM	68.9	76.7	74.36	
5:00 PM to 6:00 PM	65.9	69.7	67.78	
6:00 PM to 7:00 PM	66.1	70.2	67.16	
7:00 PM to 8:00 PM	67.5	71.6	69.50	
8:00 PM to 9:00 PM	68.6	70.1	68.61	
9:00 PM to 10:00 PM	69.4	72.3	71.09	

Date of Study :	25/09/2020 to 26/09/2020	Night time :	10 PM to 6 AM
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Time (hrs.)	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	Night time L <sub>eq</sub>
10:00 PM to 11:00 PM	64.6	69.9	68.01	65.83
11:00 PM to 12:00 AM	63.2	68.1	66.31	
12:00 AM to 1:00 AM	61.4	67.9	65.77	
1:00 AM to 2:00 AM	60.5	66.8	64.70	
2:00 AM to 3:00 AM	59.9	62.5	61.39	
3:00 AM to 4:00 AM	58.4	61.7	60.36	
4:00 AM to 5:00 AM	62.5	68.6	66.54	
5:00 AM to 6:00 AM	65.5	69.6	68.02	

L<sub>min</sub> : Minimum Noise level

L<sub>eq</sub> :Equivalent sound energy

Compiled by : (Signature)  
Dr. Ajoy Paul

Envirocheck Seal  
Date : 03/10/2020

Certified by : (Signature)  
Dr. S. B. Chowdhury



# **Annexure-11**

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

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

Dated: 21<sup>st</sup> 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 6<sup>th</sup> 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 13<sup>th</sup> 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<sup>o</sup> 36' 52" N Latitude and 86<sup>o</sup> 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 <sup>2</sup>	1X20 m <sup>2</sup>	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 <sup>3</sup>	1x350m <sup>3</sup>	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 & AOD 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 <sup>3</sup>	225 m <sup>3</sup>	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 m<sup>3</sup>/hr i.e. 13,416 m<sup>3</sup>/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 14<sup>th</sup> 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 4<sup>th</sup> meeting of held on 25<sup>th</sup> - 26<sup>th</sup> February, 2016 and 7<sup>th</sup> meeting held on 30<sup>th</sup> May to 1<sup>st</sup> 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/Nm<sup>3</sup> 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 31<sup>st</sup> 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 16<sup>th</sup> 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 30<sup>th</sup> 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  $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_2$  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 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from 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;  $PM_{10}$ ,  $SO_2$ ,  $NO_x$  (ambient

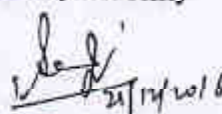
levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

- 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 31<sup>st</sup> 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, Chandrasekharpur, Bhubaneswar – 751023.
5. Guard File / Record File/Monitoring file.

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

# **Annexure-12**



R K Mishra &lt;rk.mishra@shakambhariispat.com&gt;

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## Submission of Environment Statement (Form-V) for FY: 2019-20 of M/S Shakambhari Ispat & Power Limited

1 message

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**R K Mishra** <rk.mishra@shakambhariispat.com>

Thu, Oct 29, 2020 at 7:15 PM

To: mswarupk@wbpcb.gov.in

Cc: roez.bsr-mef@nic.in, SK Sachan &lt;sksachan@shakambhariispat.com&gt;

Bcc: "Mr. Parimal Ravi Kumar Vinzey" &lt;seniorvpworks.sipl@shakambharigroup.in&gt;

Dear Sir,

With reference to above subject we are submitting attached herewith the Environment Statement (Form-V) for the financial year ending 31<sup>st</sup> March, 2020 of M/s Shakambhari Ispat & Power Limited, Vill-Madandih, PO-Bartoria, Dist-Purulia (WB) for your kind consideration please.

Kindly acknowledge our submission

With regards,

Yours faithfully,

for **Shakambhari Ispat & Power Limited**

R. K. Mishra

AGM-EHS

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 **SIPL-Env. Statement (Form-V)\_2019-20.pdf**  
11544K



# **Annexure-13**

To,  
**Shri A. K. Agrawal**  
Director, Industry-1,  
Ministry of environment Forest & Climate Change,  
Indira Paryavaran Bhawan, Jorbagh Road, Aligang,  
New Delhi-110003

Date: 03-09-2020

**Subject: Submission of Affidavit in respect to EC F. No. J-11011/201/2013-IA.II(I)  
Dated 29.04.2020-Amendment in Environmental Clearance regarding**

Dear Sir,

This is in reference to above subject and online proposal no IA/WB/IND/48189/2014 dated 30/11/2018, submitted by M/s Shakambhari Ispat & Power Ltd. seeking amendment in the environmental clearance accorded by the MoEF&CC, on 21/12/2016, vide letter no J-11011/201/2013-IA II(I) accorded expansion of integrated steel plant located at Village Pavatpur, Radhamadhabpur, Madandih, PO Bortoria, Purulia, West Bengal.

The MoEF&CC considered the aforesaid proposal based on the recommendations of the Expert Appraisal Committee (Industry-1) and decided to grant amendment in the EC dated 21/12/2016 and communicated to us vide its letter dated 29/04/2020 which was received by us dated 17/06/2020 through speed post whereby we are directed to submit an Affidavit ensuring the compliance to the non-compliances / partial compliances reported in the monitoring report of the Regional Office dated 18/02/2019

We are hereby submitting attached the Affidavit in compliance of the directions of Hon'ble Ministry for your kind consideration please.

We sincerely assure of our commitment for all time compliance of the directions made by MoEF&CC.

With regards,

For **Shakambhari Ispat & Power Ltd.**

(Deepak Kumar Agarwal)  
Director

Encl: Affidavit

Copy to:  
Deputy Director General (Central), Ministry of Environment, Forest and Climate  
change, Regional Office (EZ), A/3, Chandrashekharapur Bhubaneswar-751023

www.shakambhari.com  
<Dial 19002666868> Clear Masks, Stay Safe

EW461647355IN TVR:6987461647355 India Post  
SP KOLKATA GPO <700001>  
Counter No:8, 15/09/2020, 12:11  
To: THE DY DIR GEN C, MINISTRY OF E  
PIN: 751023, S.E Rly. Proj. Complex S.O  
From: D K AGARWAL,,  
Wt: 22gms  
Amt: 41.30 (Cash) Tax: 6.30

To,  
**Shri A. K. Agrawal**  
Director, Industry-1,  
Ministry of environment Forest & Climate Change,  
Indira Paryavaran Bhawan, Jorbagh Road, Aliganj,  
New Delhi-110003

Date: 03-09-2020

**Subject: Submission of Affidavit in respect to EC F. No. J-11011/201/2013-IA.II(I)  
Dated 29.04.2020-Amendment in Environmental Clearance regarding**

Dear Sir,

This is in reference to above subject and online proposal no IA/WB/IND/48189/2014 dated 30/11/2018 submitted by M/s Shakambhari Ispat & Power Ltd. seeking amendment in the environmental clearance accorded by the MoEF&CC, on 21/12/2016, vide letter no J-11011/201/2013-IA II(I) accorded expansion of integrated steel plant located at Village Pavatpur, Radhamadhabpur, Madandih, PO Bortoria, Purulia, West Bengal.

The MoEF&CC considered the aforesaid proposal based on the recommendations of the Expert Appraisal Committee (Industry-1) and decided to grant amendment in the EC dated 21/12/2016 and communicated to us vide its letter dated 29/04/2020 which was received by us dated 17/06/2020 through speed post whereby we are directed to submit an Affidavit ensuring the compliance to the non-compliances / partial compliances reported in the monitoring report of the Regional Office dated 18/02/2019

We are hereby submitting attached the Affidavit in compliance of the directions of Hon'ble Ministry for your kind consideration please.

We sincerely assure of our commitment for all time compliance of the directions made by MoEF&CC.

With regards,

For **Shakambhari Ispat & Power Ltd**

(Deepak Kumar Agarwal)  
Director

Encl: Affidavit

Copy to:

Deputy Director General (Central), Ministry of Environment, Forest and Climate change, Regional Office (EZ), A/3, Chandrashekharpur Bhubaneswar-751023



SL NO. 21/2020



পশ্চিমবঙ্গ পশ্চিম বঙ্গাল WEST BENGAL



AD 590092

**AFFIDAVIT**

I, **Deepak Kumar Agarwal**, Son of Shri Kamabatar Agarwal, residing at Fort Oasis, 38B, Tower 1, Flat No-603, 6<sup>th</sup> Floor, Panditya Road, Kolkata-700029, by faith Hindu, by occupation businessman, and well conversant with its facts and circumstances regarding the statements I make hereunder, do hereby solemnly affirm and declare as follows:

1. That I am the Promoter/Director (DIN- 00646153) of the company M/s Shakambhari Ispat & Power Ltd, situated at Vill-Madandih, PO-Bartoria, Dist Purulia (WB) a limited company under the provisions of Companies Act 1956 and being an existing company under the Companies Act, 2013 having registered office at Diamond Prestige, 41A AJC Bose Road, 8<sup>th</sup> Floor, Room. No. 801, Kolkata 700 017.
2. That the Company Shakambhari Ispat & Power Ltd. made an online proposal no IA/WB/IND/48189/2014 dated 30/11/2018 seeking amendment in the environmental clearance accorded by the MoEF&CC, on 21/12/2016, vide letter no J-11011/201/2013-IA II(I) accorded expansion of integrated steel plant located at Village Pavatpur, Radhamadhabpur, Madandih, PO Bortoria, Purulia, West Bengal.

SHAKAMBHARI ISPAT & POWER LTD.



  
Director

4 SEP 2020

142582

3 SEP 2020

To \_\_\_\_\_ Rs. \_\_\_\_\_

Name: Sharamdhari Inpa & power Ltd.

Address: Y/A. A.C. Bore W.

Village: K.A. 17

**L. CHANDRABORTY**  
 ED, Dr. Reshmi Prasad Sarani  
 Kolkata - 700 001

142582

3 SEP 2020



3. That the MoEF&CC considered the aforesaid proposal based on the recommendations of the Expert Appraisal Committee (Industry) and decided to grant amendment in the EC dated 21/12/2016 and communicated to us vide its letter dated 29/04/2020 which was received by us dated 17/06/2020 through speed post whereby we are directed to submit an Affidavit ensuring the compliance to the non-compliances / partial compliances reported in the monitoring report of the Regional Office dated 18/02/2019
4. We hereby ensure compliance to the non-compliances / partial compliances reported in the monitoring report of the Regional Office dated 18/02/2019. This has already been submitted to the Regional Office Bhubaneswar and the closure reports dated 17.10.2019 & 23.12.2019 from Regional Office has been submitted to the ministry.
5. We sincerely ensure of our all time commitment to comply with directions of Hon'ble Ministry.

Verified at Kolkata on this date 03/09/2020 that the contents of the above undertaking at true and correct to the best of my knowledge and nothing material has been concealed therein.

Shakambhari Ispat & Power Ltd  
SHAKAMBHARI ISPAT & POWER LTD.  
  
Director  
Director  
(Deepak Kumar Agarwal)

Identified by   
Advocate

I solemnly Affirm and  
swear before me on  
Identification of Ld Advocate  
  
TAPAN DAS  
Notary Genl. of India  
Kolkata & 24 Parganas

 4 SEP 2020

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

Indira Paryavaran Bhawan  
Jor Bagh Road, Aliganj,  
New Delhi – 110003

E-mail: dirind-moefcc@gov.in  
Tel: 011-24695368

Dated: 29<sup>th</sup> April, 2020

To

Shri Deepak Kumar Aggarwal,  
Director,  
M/s. Shakambhari Ispat and Power Limited,  
Village Pavatpur, Radhamadhabpur,  
Madandih, 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 Limited** located at Village Pavatpur, Radhamadhabpur, Madandih, PO–Bortoria, District Purulia, West Bengal – **Amendment in Environmental Clearance –reg.**

Sir,

This refers to the application of M/s. Shakambhari Ispat and Power Limited made vide online proposal no. IA/WB/IND/48189/2014 dated 30<sup>th</sup> November, 2018 seeking amendment in the environmental clearance accorded by the MoEF&CC, New Delhi on 21<sup>st</sup> December, 2016 vide letter No. J-11011/201/2013-IA II(I) accorded for 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] located at Village Pavatpur, Radhamadhabpur, Madandih, PO–Bortoria, District Purulia, West Bengal.

The proposal cited above was considered during the 3<sup>rd</sup> meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 9-11<sup>th</sup> January, 2019. The EAC proceedings of the proposal cited above is given as below.

**Details submitted by the project proponent:**

2.0 M/s Shakambhari Ispat & Power Limited has implemented some of the facilities and some of the facilities are yet to be implemented. It is proposed to change some of the configuration without increasing the overall production capacities.

3.0 The units / capacities for which Environmental clearance has been accorded from MoEF&CC, the implemented units, the units not implemented along with amendment required for units, are presented below:

Sl. No.	Facilities	Capacities as per EC letter No. J-11011/201/2013-1AII(I) dated 21.12.2016		Existing Status		Amendment Required (Final Configuration)		Remarks
		Configuration	Production	Implemented capacities	Unit not yet Implemented	Configuration	Production	
1	Induction Furnace with Caster	1x8 T 2X15 T 2x12 T 2x35T 4x25T	5,23,950 TPA	1x8T 2X15 T 2x12T 2x25T	2x25T 2x35T	9x25 T	5,23,950 TPA	5x25T Induction Furnaces shall be installed by replacing already implemented 1x8T, 2x12T, 2X15 T and by revising 2x35T capacity furnaces, which is yet to be implemented. Total number of units reduced from 11 to 9.
		232 T		112 T		120 T		
2	Sponge Iron / DRI with Pre-Heater	3x100 TPD 4x350 TPD	5,44,000 TPA	3x100 TPD, 2x350 TPD	2x350 TPD	3x100 TPD, 2x350 TPD, 1x600 TPD, 1X100 TPD	5,44,000 TPA	1x600 TPD and 1x100 TPD DRI Kiln shall be installed instead of 2x350 TPD DRI Kilns (not yet implemented) to achieve better productivity, high steam generation, less land & water.
		1700 TPD		1000 TPD		700 TPD		



Sl. No.	Facilities	Capacities as per EC letter No. J-11011/201/2013-1AII(I) dated 21.12.2016		Existing Status		Amendment Required (Final Configuration)		Remarks
		Configuration	Production	Implemented capacities	Unit not yet Implemented	Configuration	Production	
3.	AFBC / CFBC	65 MW	65 MW	32 MW	33 MW	62 MW	62 MW	Capacity of AFBC/CFBC reduced from 65 MW to 62 MW. Capacity of WHRB increased from 34 MW to 37 MW due to improved steam generation from proposed combination of (1x600TPD +1x100 TPD) DRI.
	WHRB	34 MW	34 MW	20 MW	14 MW	37 MW	37 MW	
	TOTAL CPP	99 MW		52 MW	47 MW	99 MW		
4.	Ferro Alloy Plant	2x12 MVA 2x12 MVA	FeMn-36,608 TPA SiMn-26,542 TPA	-	2x12 MVA 2x12 MVA	4x9 MVA FeMn / SiMn / FeCr / FeSi / Pig Iron	63150 TPA	Size of each SAF is reduced from 12 MVA to 9MVA, thereby reducing the total installed capacity from 48MVA to 36 MVA.
		4X12 MVA	63150 TPA		4X12 MVA		63150 TPA	
5.	Rolling Mill	1000 TPD	3,00,000 TPA	600 TPD	400 TPD	1000 TPD	3,00,000 TPA	No Change
6.	Coal Washery	0.74 MTPA	Clean Coal-0.33MTPA	-	0.74 MTPA	0.74 MTPA	Clean Coal-0.33MTPA	

Sl. No.	Facilities	Capacities as per EC letter No. J-11011/201/2013-IAH(I) dated 21.12.2016		Existing Status		Amendment Required (Final Configuration)		Remarks
		Configuration	Production	Implemented capacities	Unit not yet Implemented	Configuration	Production	
7	Iron Ore Beneficiation	0.63 MTPA	Beneficiated IO- 0.394 MTPA Tailings - 0.236 MTPA	-	0.63 MTPA	0.63 MTPA	Beneficiated IO- 0.394 MTPA Tailings - 0.236 MTPA	
8	Sinter Plant	1x20 m <sup>2</sup>	1,98,000 TPA	-	1x20 m <sup>2</sup>	1x20 m <sup>2</sup>	1,98,000 TPA	
9	Pellet Plant	1x1870 TPD	5,82,000 TPA	-	1x1870 TPD	1x1870 TPD	5,82,000 TPA	
10	MBF	1x350 m <sup>3</sup>	2,49,900 TPA	-	1x350 m <sup>3</sup>	1x350 m <sup>3</sup>	2,49,900 TPA	
11	Oxygen Plant	225 m <sup>3</sup>	-	-	225 m <sup>3</sup>	225 m <sup>3</sup>	-	
12	Lime Plant	250 TPD	80,000 TPA	-	250 TPD	250 TPD	80,000 TPA	

4.0 The salient features of the amendment proposal are as follows.

- ✓ Overall coal consumption shall be reduced by 38,160 TPA resulting in reduced pollution load.
- ✓ Overall Dust load shall be reduced by 11,515 kg/annum
- ✓ Land requirement shall be reduced by 2.25 acres.
- ✓ Power generation shall be increased by 3 MW through WHRB and reducing same through CFBC Boiler.
- ✓ Rolling Mill based on direct charging of hot Billets. No Reheating Furnace.
- ✓ DRI Dolochar shall be 100% consumed in the Power Plant. Other iron bearing dust and mill scales shall be consumed in Sinter Plant.

5.0 EIA Consultant: M/s. Envirotech East Pvt. Ltd., NABET Accreditation as per QCI NABET list of 17<sup>th</sup> December, 2018.

**Observations of the committee:**

6.0 The committee observed that the overall production capacity will remain unchanged and the larger configuration will reduce the pollution load.

**Recommendations of the committee:**

7.0 After detailed deliberations, the committee recommended for amendment in the configuration as proposed in the table given at paragraph 3 above.

8.0 The Ministry of Environment, Forest and Climate Change (MoEF&CC) has considered the aforesaid proposal based on the recommendations of the Expert Appraisal Committee (Industry 1) and hereby decided to grant amendment in the EC dated 21/12/2016 as mentioned in the table given at paragraph 3 above subject to the following additional condition:

- i. An affidavit ensuring compliance to the non-compliances/partial compliances reported in the monitoring report of the Regional Office dated 18/02/2019 shall be submitted to the Ministry and to the Regional Office of the Ministry at Bhubaneshwar within three months from date of issue of this letter.

9.0 All other terms and conditions mentioned in the earlier EC letter no. J-11011/201/2013-IA.II(I) dated 21/12/2016 shall remain unchanged.

10.0 The PP shall obtain fresh environmental clearance in case of change in scope of the project if any.

This issues with the approval of Competent Authority.

Yours faithfully,

  
(A.K. Agrawal)  
Director

**Copy to:-**

1. Secretary, Department of Environment, Government of West Bengal, Secretariat Kolkata.
2. Deputy Director General (Central), Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandrasekharpur, Bhubneshwar-751 023.
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
4. Chairman, West Bengal State Pollution Control Board, Paribesh Bhawan, 10A- Block LA, Sector -III, Salt Lake City, Kolkatta – 700 098.
5. Member Secretary, Central Ground Water Authority, West Block -II, Wing -3, Sector I, R.K.Puram, New Delhi – 110086.
6. District Collector, Purulia District, State of West Bengal.
7. Guard File / Record file / Monitoring file.
8. MOEF&CC Website.

  
(A.K. Agrawal)  
Director