

Ref: -SIPL/SMC/MoEFCC/APRIL-2022 TO SEPT-2022

Date: 18.12.2022

To,

The Inspector General of Forest (IGF)

GOI, MoEF&CC,

Integrated Regional Office, Kolkata

IB-198, Salt Lake City, Sector-III, Kolkata – 700106

SUB: Six Monthly Compliance (April-2022 to Sept-2022) to Environmental Clearance conditions vide MoEF&CC F. No. J-11011/201/2013-IA- II (I) Dated 21st December, 2016 and EC amendment dated 29th April, 2020 by M/s Shakambhari Ispat & Power Limited, Vill-Madandih, PO-Bartoria, Dist- Purulia (WB)

Dear Sir/Madam,

With reference to above, we are submitting herewith the six-monthly compliance report (Period April-2022 to Sept-2022) 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 consideration.

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 Environmental Engineer, West Bengal Pollution Control Board, Asansol Regional Office, Kalyanpur Satellite Township Project, Dr. B.C. Roy Road, PO- Dakshin Dhadka, Asansol-713302 Dist.-Paschim Bardhaman (WB)



SHAKAMBHARI ISPAT & POWER LIMITED

Compliance Status of Environmental Clearance

MoEF&CC. F. No.: J-11011/201/2013-IA II (I) Dated: 21.12.2016 and EC amendment dated 29.04.2020

Compliance Period: April-2022 to September-2022



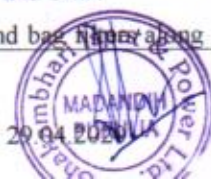
Project Location:

Village-Madandih, P.O.-Bartoria, Dist.-Purulia, West Bengal-723121



Name of the Project	:	Shakambhari Ispat & Power Limited Village-Madandih, PO-Bartoria Dist.-Purulia (WB)
Environmental Clearance F. No.	:	J-11011/201/2013-IA II (I) Date: 21.12.2016 and EC amendment dated 29.04.2020
Period of Compliance Report	:	April-2022-September-2022

Sl. No.	Conditions	Compliance Status
Specific Condition:		
i.	The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office	We have installed 24x7 Online Continuous Emission Monitoring System (OCEMS) with all major stacks and connected to CPCB portal to monitor the air emissions. Latest stack monitoring report is attached as Annexure-1 .
ii.	No dumping is permitted in the abandoned coal mines 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.	It is being complied. No dumping being done in the abandoned coal mines 2B and 2C nearby Parbelia village. Iron ore beneficiation plant has not been installed so far. Therefore, Iron ore tailings storage facility is not applicable at this stage. Fly ash / bed ash are being handled properly.
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.	SIPL has already installed de-dusting systems like bag filters and ESPs for an effective control of dust emissions. Dust extraction system has been provided at the strategic points attached with bag filter units for cooler discharge, intermediate bin, product house etc. Dust conveying system from cooler discharge to ABC have been provided with each DRI Kiln., Fixed type water sprinklers for dust suppression in raw material & product handling areas, along the conveyor, finished product house area, cooler discharge, Coal Handling Plant (CHP), along with Kiln axis and all other strategic locations. SIPL have deployed movable water tankers and road sweeping machine for dust cleaning on the road and to minimizing fugitive emissions. Latest monitoring report is attached as Annexure-2
iv.	The ETP for Mini Blast Furnace effluent should be designed to meet Cyanide standard as notified by the MoEF&CC.	It shall be complied. 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.	Recycle and reuse practice has been adapted 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	Online Continuous Emission Monitoring System (OCEMS) have been installed at Stacks of DRI, CPP and SAF. Air pollution control devices viz. ESPs and bag filter are being



	(ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm ³ and installing energy efficient technology.	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 Annexure-1
vii.	Hot gases from DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely. The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.	Hot gases from DRI Kiln being passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) for complete burning of CO. The dust content from gas being separated by ESP and cleaned gas discharged through 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. We have rain water harvesting pond to harvest the rain water and reduce the water consumption. Air cooled condensers and closed-circuit cooling system have been provided with CFBC boiler to reduce water consumption. Cooling water in DRI, SMS and Rolling Mill are recycled back to the system. Rolling mill effluent being treated in ETP and recycled back to the process. Sludge generated from ETP being utilized in SAF/sold with mill scale. Cooling tower blowdown and softener/DM plant rejects being taken into neutralization/humanization pit and after maintaining the pH it is being utilized for dust suppression, ash handling and for sprinkling on road to control fugitive dust emissions.
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.	It is being complied. 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 sold to its recyclers.
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.	SIPL has completed concreting of approx. more than 96% internal roads where heavy vehicle movements are exercised, and concreting of balance roads are under progress. The company has completed the paver blocking of around 95% of area where heavy vehicle movements are not envisaged. Along with paver blocking company has also done the concreting of many workplace areas of the plant. Some photographs are attached as Annexure-3 We have already purchased the road sweeping machine and the same is operational. Parking area for the trucks within the unit has been provided. Annexure-4. Progressive measures have been taken to develop avenue plantation and green cover using indigenous species i. e. Radhachura, Neem, Arjun, Sphodia, Bat, Peepal, Bakul, Conocarpus, Kadam, Rain tree, shishu, Sonajhuri, Siris, Pitanjiba, Ficus, Krishnachura etc. along the plant periphery as well as inside the plant. Some pictures are attached as Annexure-5
xi.	The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.	It is being followed.




xii.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 shall be followed	It is being followed. Latest Ambient Air Quality Monitoring report is attached as Annexure-6
xiii.	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	Utmost priority is given to reduce the air pollution within the plant. Suitable control measures have been undertaken to keep Gaseous emission levels including secondary fugitive emissions within the latest permissible limits. Last monitoring report is enclosed as Annexure-2
xiv.	Regular monitoring of influent and effluent surface, sub- surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more Stringent.	Regular monitoring being done. Recycle and reuse practice have been adapted and no effluent discharged outside the factory premises. Latest monitoring report is enclosed as Annexure-7
xv.	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.	Proper handling, storage, utilization and disposal of solid waste being done. Analysis of toxic metal content in the solid waste being periodically carried out by approved agency. The monitoring report by NABL accredited laboratory is enclosed as Annexure- 8
xvi.	A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.	The Dolochar generated from DRI division is being strictly utilized for power generation at our Captive Power Plant (CPP). Fly ash is being provided to fly ash brick manufacturer. Accordingly, company has made agreement for the same. We have also got permission from Eastern Coalfields Limited (ECL) for filling the illegally mined place at Bicched Bandh area near Narsamunda Colliery of Sodepur area. Copy of the agreement is enclosed as Annexure-9A & Annexure-9B Induction Furnace slag, silico manganese slag and bottom ash are being used for land filling and road construction/maintenance work.
xvii.	Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendments. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office.	All the fly ash generated within the plant is provided to brick manufacturers for further utilization. Accordingly, company has made agreement for the same. We have also got permission from Eastern Coalfields Limited (ECL) for filling the illegally mined place at Bicched Bandh area near Narsamunda Colliery of Sodepur area. Copy of the agreement is enclosed as Annexure-9A & Annexure-9B
xviii.	A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied. It is already been submitted.
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	SIPL has achieved 33% target of green belt development. With extensive plantation drive by using indigenous species i. e. Radhachura, Neem, Arjun, Sphodia, Bat, Peepal, Bakul,



	communities as per the CPCB guidelines.	<p>Conocarpus, Kadam, Rain tree, shishu, Sonajhuri, Siris, Pitanjiba, Ficus, Krishnachura etc. along the plant periphery as well as inside the plant according to recommendation from DFO and species of local growing species. Approx. 35,000 Nos. plants have been planted so far for green belt development. Further, we are committed to develop more greenery by identifying more scope of plantation and green cover development during ensuing monsoon season.</p> <p>Some photographs of green belt development/green cover plantation are attached as Annexure-5.</p>
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.	<p>It is being complied.</p> <p>We are in the process of regular compliance of commitments made during public hearing and an additional as per demand of the local people. Various CSR activities have been undertaken by SIPL for the benefit of local community of nearby villages i.e. Distribution of blanket, winter dresses for local needy villagers. Drinking water to the nearby villagers as per requirement. Providing study material to the school students and also arrange the sitting facilities to the school students. Repairing & coloring of school building. Food grains distribution to acute malnourished community. Monetary support to the surrounding villagers for varies cultural program etc.</p> <p>We have dedicated HR & 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>Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken reporting this regard shall be submitted to the Ministry's Regional Office.</p>	<p>The amount earmarked is exclusively used for the implementation of Enterprise Social Commitment. Our expenditures are incurred primarily towards supporting education, health, and uprising the local community, such as building schools, repairing and renovating of old schools in local villages, support for developing the furnished classrooms, facilitating study materials and utilities, and providing support to the Harmadih hospital by facilitating with beds, medical equipment, drinking water arrangements, oxygen cylinders, illumination of hospital premises, etc., blanket and winter wear distribution to the nearby villagers, construction of public toilets, construction of Temples and Prayer Halls for local communities in nearby villages, supporting Sri Biranchidham Temple for social causes including organization of Sraboni Mela, local festivals and Puja, organizing Balak Bhojan, etc. In addition to the above, further our primary objective is the Skill development of the local youth and strengthening employability, also to support self-help grouping.</p>
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	<p>SIPL have undertaken various social activities in nearby villages in consultation with local communities for their benefit of health, education, 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.</p> <p>The SIPL has also started the varieties of CSR activities with its NGO Shree Shyam Seva Sansthan.</p> <p>Some photographs of CSR activity are attached as Annexure-10.</p>



	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 being into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of noncompliance/ violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.	<p>Complied. SIPL have implemented standard operating procedure to look into any infringement/ deviation/violation of environmental or forest norms/conditions.</p>  <pre> graph TD Board[Board of Directors] --> CMD[CMD] CMD --> EDC[ED - CORPORATE] EDC --> HEMC[Head - Environment Management Cell] EDC --> OH[OH Head] HEMC --> Env[Environment] HEMC --> Health[Health] HEMC --> Safety[Safety] Env --> EnvOff[Env. Officer / Engr] Health --> HealthOff[Health Officer] Safety --> SafetyOff[Safety Officer] OH --> OpsHead[Operations Head] </pre> <p>SIPL have also the Hierarchical system/ Administrative order to deal with environmental issues and compliance of EC conditions.</p> <p>SIPL have in placed reporting system for non – compliance / violation of environmental norms.</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.	<p>It is complied</p> <p>Solar lighting system have been installed at Radhamadhabpur village, roadside lamps on nearby temple area. Solar lighting system is being maintained on regular basis.</p>
xxv.	The project proponent shall provide for LED lights in their offices and residential areas.	<p>Complied.</p> <p>Energy conservation measure has already been adapted by providing LED lights in the offices to minimization of energy consumption.</p>
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.	<p>It shall be complied.</p> <p>At present no any major project activities are going on, and workers whoever involved in construction activities are from nearby area and do not require to stay at project site.</p>
General Condition:		
i.	The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board and State Government.	It is being adhered as per the stipulation made by WBPCB and State Government. Consent to Operate (CTO) obtained from WBPCB is attached as Annexure-11 .
ii.	No further expansion or modification in the plant shall be carried out without prior approval of the	It shall be followed. No further modification or expansion will be undertaken



	Ministry of Environment, Forests and Climate Change (MoEF&CC).	without prior approval of the Ministry of Environment, Forests and Climate Change (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 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 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 ₁₀ , PM _{2.5} , SO ₂ , and NO _x . Latest Ambient Air Quality monitoring report and stack monitoring report is enclosed as Annexure-6 & Annexure-1
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. Effluent generated from roiling mill being treated in ETP and recycled back to the process. Sludge generated from ETP being utilized in SAF/sold with mill scale. Cooling tower blowdown back wash/reject water from softener and DM plant being taken into neutralization/homogenization tank and after maintaining the pH it is being utilized for dust suppression and, ash handling, bed ash cooling and for sprinkling on road to control fugitive dust emissions. No industrial effluent being discharged outside the factory premises.
v.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB(A)) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Noise control measure has already been implemented to keep the noise level well within the 85 dB(A) and ambient noise level below 75 dB(A) (during day time) and 70 dB(A) (during night time). Work Zone and Ambient Noise Monitoring report is enclosed as Annexure- 12A & Annexure-12B
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 on regular interval and records are maintained. Last Health checkup report of some employees is enclosed as Annexure-13
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 pond has been developed within the plant premises to harvest the rain water. This water is being utilized in the lean season as per requirement.
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 and recommended in the EIA/EMP reports. Socio-economic development of local community has already undertaken through providing job to local people. SIPL have undertaken various social activities in nearby villages in consultation with local communities for their benefit of health, education, cultural activities, and employment to local people etc. The SIPL has started the varieties of CSR activities with its NGO Shree Shyam Seva Sansthan. The company has dedicated HR & IR personnel to look after the welfare activities for local community and redressing of issues if any. Some photographs of CSR activity are attached as Annexure-10.



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 being released towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by MoEF&CC. Accordingly necessary facilities like ESPs followed by silos for de-dusting during boiler operation , bag filters along with dust extraction system, Water sprinkling system for fugitive dust suppression, water tankers and road sweeping machine for dust suppression on roads, water recycling system etc. have been installed for abatement of the pollution. Concretization/paving of roads are advance stage of completion. Suitable man powers 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. Clearance letter is sent to concerned local body. The EC copy is attached as Annexure-14 EC letter is also uploaded to company website. http://shakambhariispat.com/environmental-orders
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; 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.	Being complied. Compliance status being periodically uploaded on the company website. http://shakambhariispat.com/environmental-compliance Environmental parameter monitored has been displayed at the entrance of the company main gate in the public domain. Attached as Annexure-15
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 compliance reports on the status of the compliance of the stipulated environmental conditions including results of monitored data had been submitted to MoEF&CC and Pollution Control Board in both soft & hard copies. Now it is being submitted in soft copy only as per direction of Hon'ble MoEF&CC F. N0. 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.	Being complied. The environment statement (Form-V) for Financial Year 2021-22 has been submitted to WBPCB with copy to Integrated Regional Office of the MOEF&CC, Kolkata (Annexure-16). The report has been uploaded on the company's website as per direction. http://shakambhariispat.com/environmental-statement



xiv.	The project proponent shall inform the public that the project has been accorded environment clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment, Forest and Climate Change (MoEF&CC) at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same should be forwarded to the Regional Office at Bhubaneswar	Complied.
xv.	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Financial closure as well as date of start of land development work has already been informed.
Additional condition as per EC Amended F. No. J-11011/201/2013-IA.II (I) dated 29th April, 2020		
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.



Annexure-1



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambharilspat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/1	Report No.	: ENV/52/Sep./TR(A)/1/22-23

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	: Combustion of Coal & Reduction of Fe-Ore
Fuel Used	: Coal
Working Fuel Consumption	: 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)	: 146.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 9.27
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 72472.52
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 705.51
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 10.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 10.8% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 17.59
	b) Concentration of Particulate Matter (at 12% CO ₂)			: 19.54

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. AJOY PAUL
Quality Manager

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



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018



TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Neturia, Dist – Purulia, (WB)– 723121	Sampling Date	: 07.09.2022
		Period of Analysis	: 12.09.2022 – 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/II	Report No.	: ENV/52/Sep./TR(A)/II/22-23

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln (No. 3 & 4) (100 TPD each) (attached to common Stack)
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 100 TPD
Emission Due to	: Combustion of Coal & Reduction of Fe-Ore
Fuel Used	: Coal
Working Fuel Consumption	: 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)	: 152.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 9.72
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 74768.47
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 677.96
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.6
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11.6% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005): Sec. 11 (Vol. 3 11.07): 2011	: 41.01
	b) Concentration of Particulate Matter (at 12% CO ₂)			: 42.42

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. AJOY PAUL
Quality Manager

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 Overseas : UAE ■ Qatar ■ Netherlands



ENVIROCHECK

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TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/III	Report No.	: ENV/52/Sep./TR(A)/III/22-23

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Hoods Over Induction Furnace (6 nos.) attached to common stack
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 25 MT/Heat(each furnace)
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)	: 68.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 8.67
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 21262.47
5.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005): Sec. 11 (Vol. 3 11.07) : 2011	: 21.46

Remarks : During monitoring 4 nos. furnaces were in operation.

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

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TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Neturia, Dist – Purulia, (WB)– 723121	Sampling Date	: 07.09.2022
		Period of Analysis	: 12.09.2022 – 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/V	Report No.	: ENV/52/Sep./TR(A)/V/22-23

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln No. 7(1 x600 TPD)
Shape of Stack	: Circular
Materials of Construction	: Concrete
Capacity	: 600 TPD
Emission Due to	: Combustion of Coal & Reduction of Fe-Ore
Fuel Used	: Coal
Working Fuel Consumption	: 13.5 TPH/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)	: 191.2
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.59
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 96304.2
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 681.48
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.4
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11.4% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) :	: 34.60
	b) Concentration of Particulate Matter (at 12% CO ₂)		Sec. 11 (Vol. 3 11.07) : 2011	: 36.42

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
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TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Neturia, Dist – Purulia, (WB)– 723121	Sampling Date	: 07.09.2022
		Period of Analysis	: 12.09.2022 – 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/IV	Report No.	: ENV/52/Sep./TR(A)/IV/22-23

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln No. 5 & 6(2 x 350 TPD)(attached to common Stack)		
Shape of Stack	: Circular	Height of Stack (mtr.) (from G. L.)	: 72.0
Materials of Construction	: Concrete	Stack I.D. at sampling point (mtr.)	: 2.60
Capacity	: 350 TPD (each)	Height of sampling port (mtr.) (from G.L.)	: 51.2
Emission Due to	: Oxidation of Coal & Reduction of Fe-Ore		
Fuel Used	: Coal	Permanent Platform & Ladder	: Yes
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)	: 183.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.99
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 145075.02
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 674.50
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.6
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11.6% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) :	: 23.48
	b) Concentration of Particulate Matter (at 12% CO ₂)		Sec. 11 (Vol. 3 11.07) : 2011	: 24.29

Remarks : During monitoring both kilns were in operation

Reviewed By :

INDRANI BHATTACHARYA
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TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Neturia, Dist – Purulia, (WB)– 723121	Sampling Date	: 07.09.2022		
		Period of Analysis	: 12.09.2022 – 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Stack Emission
Sample ID No.	: ENV/52/Sep./A/V	Report No.	: ENV/52/Sep./TR(A)/V/22-23		

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: CFBC Boiler		
Shape of Stack	: Circular	Height of Stack (mtr.) (from G. L.)	: 92.0
Materials of Construction	: Concrete	Stack I.D. at sampling point (mtr.)	: 2.60
Capacity	: 100 TPH	Height of sampling port (mtr.) (from G.L.)	: 51.2
Emission Due to	: Combustion of Coal & Dolochar		
Fuel Used	: Coal & Dolochar	Permanent Platform & Ladder	: Yes
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)	: 193.0
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 ³ /hr.	IS 11255 (Part III)	: 144316.71
5.	Concentration of SO ₂ (at 6% O ₂)	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 81.82
6.	Concentration of NO _x (at 6% O ₂)	mg/Nm ³	IS : 11255 (Part 7) 2005 & ASTM D 1608-98 reapproved 2009 : Sec 11 (Vol. 11.07) : 2011	: 62.19
7.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.0
8.	Concentration of CO	% (v/v)	IS 13270 1992 RA 2003	: <1.0
9.	a) Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) :	: 22.18
	b) Concentration of Particulate Matter (at 6% O ₂)		Sec. 11 (Vol. 3 11.07) : 2011	: 23.42

Remarks :

Reviewed By :

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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. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/VII	Report No.	: ENV/52/Sep./TR(A)/VII/22-23
		Type of Sample	: Stack Emission

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	: 9.0 MVA
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
Height of Stack (mtr.) (from G. L.)	: 32.0
Stack I.D. at sampling point (mtr.)	: 1.80
Height of sampling port (mtr.) (from G.L.)	: 22.0
Permanent Platform & Ladder	: Yes

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 70.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.58
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 59885.41
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 64.2
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 2.7
7.	Concentration of CO	% (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 26.48

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



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. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/VIII	Report No.	: ENV/52/Sep./TR(A)/VIII/22-23

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	: 9.0 MVA
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)	: 65.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.33
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 58754.50
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 58.6
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 2.5
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 23.92

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
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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. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/IX	Report No.	: ENV/52/Sep./TR(A)/IX/22-23

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.3)
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 9.0 MVA
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)	: 72.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.40
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 58117.48
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 61.8
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 2.3
7.	Concentration of CO	% (v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 24.96

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



ENVIROCHECK

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



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. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/X	Report No.	: ENV/52/Sep./TR(A)/X/22-23

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.4)
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 9.0 MVA
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)	: 73.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.81
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 61167.52
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 78.4
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 2.3
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	Concentration of Particulate Matter	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol. 3 11.07) : 2011	: 12.71

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager

Annexure-2



ENVIROCHECK

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XV	Report No.	: ENV/52/Sep./TR(A)/XV/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Inside the Rolling Mill Division
2. Duration of Sampling : 08 hrs. (10:00 a.m. - 06:00 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 32.0
2. Average Relative Humidity (%) : 74.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	NIOSH 0500 : 2005	313.52

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. AJOY PAUL
Quality Manager



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
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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	: Shakambharilspat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XV	Report No.	: ENV/52/Sep./TR(A)/XV/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Inside the Rolling Mill Division
2. Duration of Sampling : 08 hrs. (10:00 a.m. - 06:00 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 32.0
2. Average Relative Humidity (%) : 74.0
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 ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	16.20
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	31.56

Remarks :

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. Ajoy Paul

Dr. AJOY PAUL
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Overseas : UAE ■ Qatar ■ Netherlands



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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XVI	Report No.	: ENV/52/Sep./TR(A)/XVI/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Near Control Room (SMS Division)
2. Duration of Sampling : 08 hrs. (10:10 a.m. - 06:10 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
2. Average Relative Humidity (%) : 73.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	NIOSH 0500 : 2005	310.58

Remarks :

Reviewed By :

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambharilspat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XVI	Report No.	: ENV/52/Sep./TR(A)/XVI/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Near Control Room (SMS Division)
2. Duration of Sampling : 08 hrs. (10:10 a.m. - 06:10 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
2. Average Relative Humidity (%) : 73.0
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 ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	11.26
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	26.50

Remarks :

Reviewed By :

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Overseas : UAE ■ Qatar ■ Netherlands



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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XVII	Report No.	: ENV/52/Sep./TR(A)/XVII/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Infront of MCC Control Room (DRI - 2 x 350 TPD)
2. Duration of Sampling : 08 hrs. (10:20 a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	NIOSH 0500 : 2005	416.82

Remarks :

Reviewed By :

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/52/Sep./A/XVII	Report No.	: ENV/52/Sep./TR(A)/XVII/22-23

A] GENERAL INFORMATION

1. Location of Sampling : Infront of MCC Control Room (DRI - 2 x 350 TPD)
2. Duration of Sampling : 08 hrs. (10:20 a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
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 ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	9.50
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	28.56

Remarks :

Reviewed By :

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XVIII	Report No.	: ENV/52/Sep./TR(A)/XVIII/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Inbetween CPP - 12 MW & DRI - 100 TPD
2. Duration of Sampling : 08 hrs. (10:25 a.m. - 06:25 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 31.0
2. Average Relative Humidity (%) : 72.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	NIOSH 0500 : 2005	316.18

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
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Approved By :

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Quality Manager



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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambharilspat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XVIII	Report No.	: ENV/52/Sep./TR(A)/XVIII/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Inbetween CPP - 12 MW & DRI - 100 TPD
2. Duration of Sampling : 08 hrs. (10:25 a.m. - 06:25 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 31.0
2. Average Relative Humidity (%) : 72.0
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 ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	12.80
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	31.52

Remarks :

Reviewed By :

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XIX	Report No.	: ENV/52/Sep./TR(A)/XIX/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Near SEAF Control Room (Ferro Alloy Division)
2. Duration of Sampling : 08 hrs. (10:10a.m. - 06:10 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 32.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	NIOSH 0500 : 2005	262.56

Remarks :

Reviewed By :

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Approved By :

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Quality Manager



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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambharilspat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XIX	Report No.	: ENV/52/Sep./TR(A)/XIX/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Near SEAF Control Room (Ferro Alloy Division)
2. Duration of Sampling : 08 hrs. (10:10 a.m. - 06:10 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 32.0
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 ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	6.80
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	25.02

Remarks :

Reviewed By :

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XX	Report No.	: ENV/52/Sep./TR(A)/XX/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Coal Shed Area (Raw Materials Handling Shed)
2. Duration of Sampling : 08 hrs. (10:20a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
2. Average Relative Humidity (%) : 72.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	NIOSH 0500 : 2005	491.20

Remarks :

Reviewed By :

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambharilspat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XX	Report No.	: ENV/52/Sep./TR(A)/XX/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Coal Shed Area (Raw Materials Handling Shed)
2. Duration of Sampling : 08 hrs. (10:20 a.m. - 06:20 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
2. Average Relative Humidity (%) : 72.0
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 ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	8.20
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	30.0

Remarks :

Reviewed By :

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XXI	Report No.	: ENV/52/Sep./TR(A)/XXI/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Near Cooler Discharge (DRI - 350 TPD)
2. Duration of Sampling : 08 hrs. (11:30 p.m. - 07:30p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
2. Average Relative Humidity (%) : 70.0
3. Barometric Pressure (mm of Hg) : 755.0
4. Smell or Odour : No Remarkable Smell

C] RESULT

SL. NO.	PARAMETER	UNIT	METHOD NO.	RESULT
1.	Concentration of SPM	µg/m ³	NIOSH 0500 : 2005	780.19

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

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TEST REPORT

FORMAT NO : ENV/FM/57

Name of the Industry	: Shakambharilspat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 08.09.2022
		Period of Analysis	: 12.09.2022 - 12.09.2022
		Date of Issue	: 14.09.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
		Type of Sample	: Work Zone Air
Sample ID No.	: ENV/52/Sep./A/XXI	Report No.	: ENV/52/Sep./TR(A)/XXI/22-23

A] GENERAL INFORMATION

1. Location of Sampling : Near Cooler Discharge (DRI - 350 TPD)
2. Duration of Sampling : 08 hrs. (11:30 p.m. - 07:30 p.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 30.0
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 ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	11.80
2.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	28.52

Remarks :

Reviewed By :

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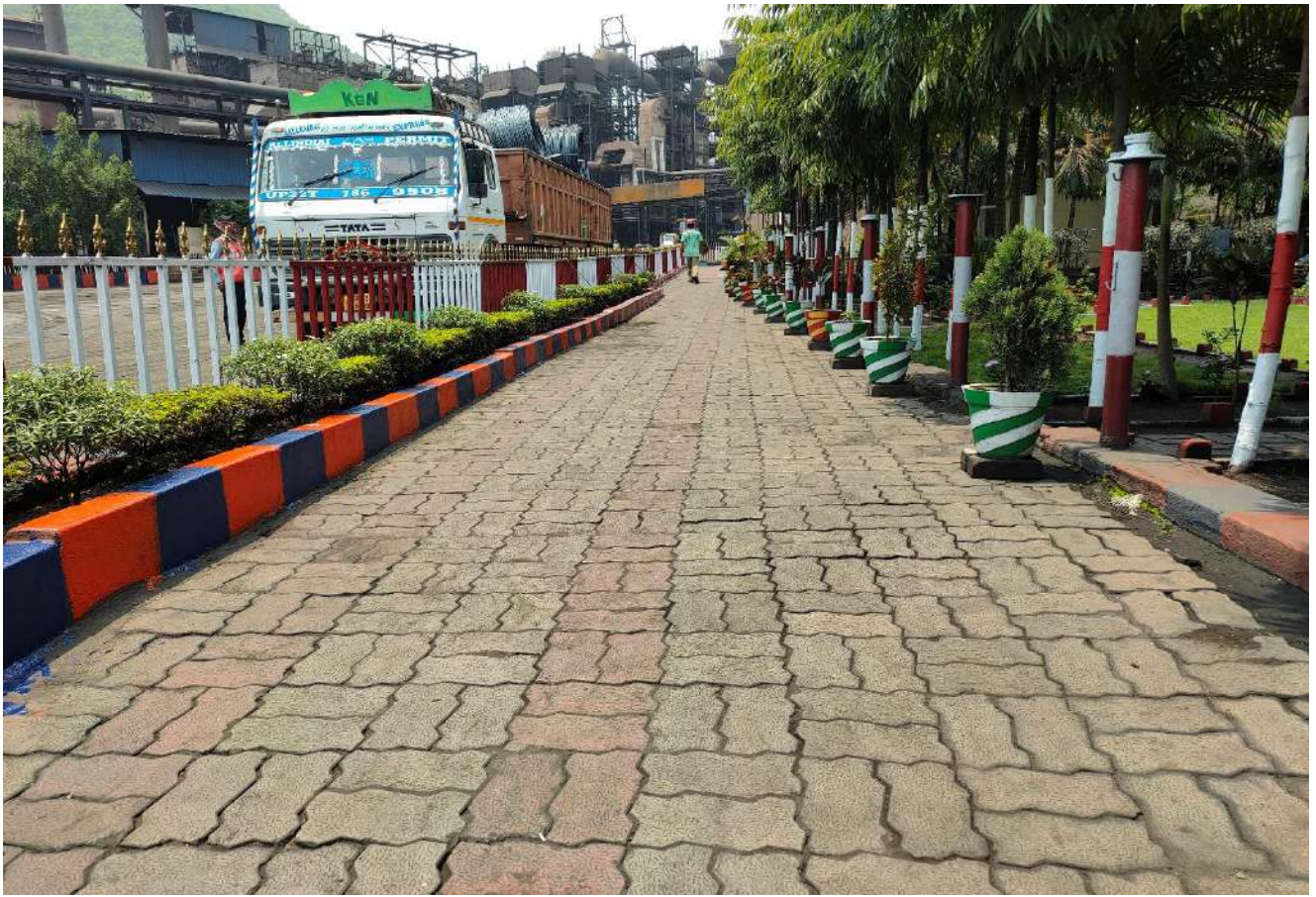
Annexure-3

RCC ROAD & PAVER BLOCK AREA INSIDE PLANT





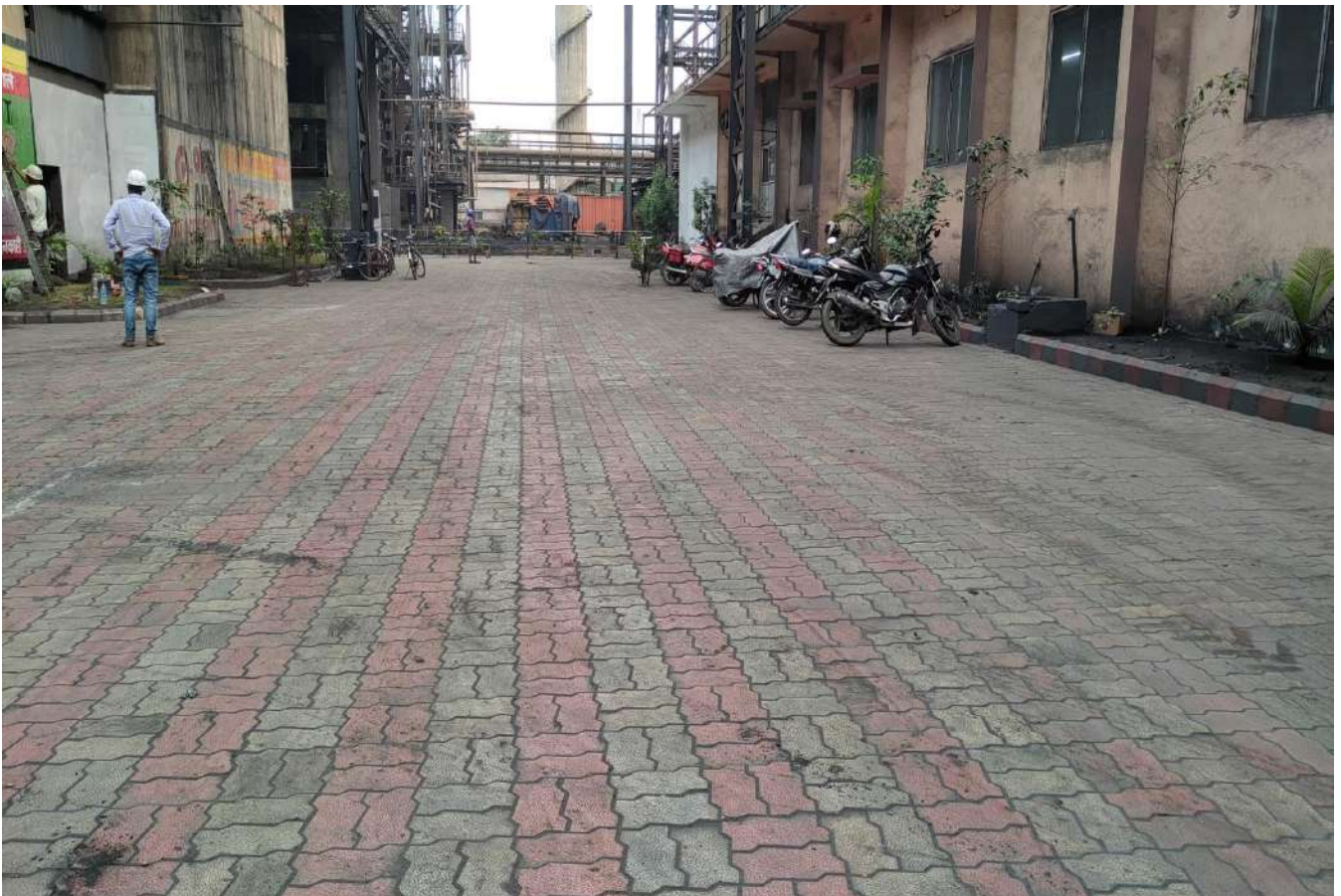














Annexure-4

TRUCK PARKING AREA



Annexure-5









Annexure-6



ENVIROCHECK

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TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022 - 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/52/Sep./A/XI	Report No.	: ENV/52/Sep./TR(A)/XI/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Near Security Gate (Southern Side)
2. Duration of Sampling : 24 hrs. (09:00 a.m. - 09:00 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 27.0
2. Average Relative Humidity (%) : 79.0
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 _{2.5}	µg/m ³	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	56.34
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2006	89.53
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	18.28
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	38.50
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10): 1999 reaffirmed 2005 & ASTM D 3162-94 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	0.42
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) 2004	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	IS 5182 (Part 12) : 2004 & ASTM D 6209-98 reapproved 2004 : Sec. 11 (Vol. 11.07) : 2011	<0.36
8.	Benzene (C ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2006 & ASTM D 5466-01 reapproved 2007 : Sec. 11 (Vol. 11.07) : 2011	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-IX) : 1974	<10.0
10.	Ammonia (NH ₃)	µg/m ³	NIOSH Manual of Analytical Method, 4 th Edition 1994, Method 6015, issue 2	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999, APHA 23 rd Ed 3114C : 2017	<0.01

Remarks :

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TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. – Madandih, P.O. – Bartoria, P.S. – Neturia, Dist – Purulia, (WB)– 723121	Sampling Date	: 07.09.2022 – 08.09.2022		
		Period of Analysis	: 12.09.2022 – 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/52/Sep./A/XII	Report No.	: ENV/52/Sep./TR(A)/XII/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Near Laboratory Buildings (SMS Division) (Northern Side)
2. Duration of Sampling : 24 hrs. (10:30 a.m. – 10:30 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 27.0
2. Average Relative Humidity (%) : 79.0
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 _{2.5}	µg/m ³	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	51.57
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2006	80.20
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	11.25
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	32.43
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10): 1999 reaffirmed 2005 & ASTM D 3162-94 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	0.26
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) 2004	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	IS 5182 (Part 12) : 2004 & ASTM D 6209-98 reapproved 2004 : Sec. 11 (Vol. 11.07) : 2011	<0.36
8.	Benzene (C ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2006 & ASTM D 5466-01 reapproved 2007 : Sec. 11 (Vol. 11.07) : 2011	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-IX) : 1974	<10.0
10.	Ammonia (NH ₃)	µg/m ³	NIOSH Manual of Analytical Method, 4 th Edition 1994, Method 6015, issue 2	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999, APHA 23 rd Ed 3114C : 2017	<0.01

Remarks :

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TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022 - 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/52/Sep./A/XIII	Report No.	: ENV/52/Sep./TR(A)/XIII/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Madandih Village (0.5 Km. from Plant)
2. Duration of Sampling : 24 hrs. (09:30 a.m. - 09:30 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 26.0
2. Average Relative Humidity (%) : 78.0
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 _{2.5}	µg/m ³	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	39.34
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2006	76.26
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	6.23
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	26.44
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10): 1999 reaffirmed 2005 & ASTM D 3162-94 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	0.20
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) 2004	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	IS 5182 (Part 12) : 2004 & ASTM D 6209-98 reapproved 2004 : Sec. 11 (Vol. 11.07) : 2011	<0.36
8.	Benzene (C ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2006 & ASTM D 5466-01 reapproved 2007 : Sec. 11 (Vol. 11.07) : 2011	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-IX) : 1974	<10.0
10.	Ammonia (NH ₃)	µg/m ³	NIOSH Manual of Analytical Method, 4 th Edition 1994, Method 6015, issue 2	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999, APHA 23 rd Ed 3114C : 2017	<0.01

Remarks :

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TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: ShakambhariIspat& Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 07.09.2022 - 08.09.2022		
		Period of Analysis	: 12.09.2022 - 12.09.2022		
		Date of Issue	: 14.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: ENV/52/Sep./A/XIV	Report No.	: ENV/52/Sep./TR(A)/XIV/22-23		

A] GENERAL INFORMATION

1. Location of Sampling : Back Side of the Captive Power Plant (Western Side)
2. Duration of Sampling : 24 hrs. (10:00 a.m. - 10:00 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 28.0
2. Average Relative Humidity (%) : 80.0
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 _{2.5}	µg/m ³	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	51.80
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2006	86.21
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	12.46
4.	Concentration of NO ₂	µg/m ³	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	26.76
5.	Concentration of CO	mg/m ³	IS 5182 (Part 10): 1999 reaffirmed 2005 & ASTM D 3162-94 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	0.28
6.	Concentration of Pb	µg/m ³	IS 5182 (Part 22) 2004	<0.01
7.	Benzo (a) Pyrene (BaP)	ng/m ³	IS 5182 (Part 12) : 2004 & ASTM D 6209-98 reapproved 2004 : Sec. 11 (Vol. 11.07) : 2011	<0.36
8.	Benzene (C ₆ H ₆)	µg/m ³	IS 5182 (Part 11) 2006 & ASTM D 5466-01 reapproved 2007 : Sec. 11 (Vol. 11.07) : 2011	<0.74
9.	Ozone (O ₃)	µg/m ³	IS 5182 (Part-IX) : 1974	<10.0
10.	Ammonia (NH ₃)	µg/m ³	NIOSH Manual of Analytical Method, 4 th Edition 1994, Method 6015, issue 2	<4.18
11.	Nickel (Ni)	ng/m ³	EPA IO 3.2, 1999	<0.02
12.	Arsenic (As)	ng/m ³	EPA IO 3.2, 1999, APHA 23 rd Ed 3114C : 2017	<0.01

Remarks :

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Annexure-7



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. - Neturia, Dist - Purulia(WB)- 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 17.09.2022		
		Date of Issue	: 19.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Industrial Effluent Water (Grab)
Location	: E.T.P Inlet	Sample ID No.	: ENV/08/Sep./W/I	Report No.	: ENV/08/Sep./TR(W)/I/22-23

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	4500H+B APHA 23 rd Edition, 2017	-	5.23
2.	Total Suspended Solids	2540 D APHA 23 rd Edition, 2017	mg/l	18.0
3.	Oil & Grease	5520 B/D APHA 23 rd Edition, 2017	mg/l	14.3
4.	Chemical Oxygen Demand	5200 B/C/D APHA 23 rd Edition, 2017	mg/l	462.4
5.	Biochemical Oxygen Demand for 3 days at 27°C	5210 B APHA 23 rd Edition, 2017	mg/l	<2.0

Reviewed By :

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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. - Neturia, Dist - Purulia (WB) - 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 17.09.2022		
		Date of Issue	: 19.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Industrial Effluent Water (Grab)
Location	: E.T.P Outlet	Sample ID No.	: ENV/08/Sep./W/II	Report No.	: ENV/08/Sep./TR(W)/II/22-23

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	4500H+B APHA 23 rd Edition, 2017	-	6.89
2.	Total Suspended Solids	2540 D APHA 23 rd Edition, 2017	mg/l	30.0
3.	Oil & Grease	5520 B/D APHA 23 rd Edition, 2017	mg/l	4.1
4.	Chemical Oxygen Demand	5200 B/C/D APHA 23 rd Edition, 2017	mg/l	84.2
5.	Biochemical Oxygen Demand for 3 days at 27°C	5210 B APHA 23 rd Edition, 2017	mg/l	<2.0

Reviewed By :

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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. - Neturia, Dist - Purulia (WB) - 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 17.09.2022		
		Date of Issue	: 19.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Surface Water
Location	: Pond at Madandih Village	Sample ID No.	: ENV/613/Sep./W/M(i)	Report No.	: ENV/613/March/TR(W)/M(i)/22-23

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	APHA 23 rd Ed., 4500 H ⁺ B : 2017	-	7.02
2.	Total Suspended Solids	APHA 23 rd Ed., 2540 D : 2017	mg/l	26.0
3.	Total Dissolved Solids	IS 3025 (Part 16) : 1984 : 2014	mg/l	1215.0
4.	Dissolved Oxygen	APHA 23 rd Ed., 4500 - OC : 2017	mg/l	7.0
5.	COD	APHA 23 rd Ed., 5220 B/C/D : 2017	mg/l	12.0
6.	BOD [3 Day's at 27°C]	APHA 23 rd Ed., 5210 B : 2017	mg/l	<2.0
7.	Oil & Grease	APHA 23 rd Ed., 5520 B/D/ : 2017	mg/l	1.20
8.	Residual Chlorine	APHA 23 rd Ed., Cl-B : 2017	mg/l	<0.04
9.	Chloride	APHA 23 rd Ed., 4500 Cl-B/D : 2017	mg/l	280.0
10.	Iron	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.49
11.	Arsenic	APHA 23 rd Ed., 3114 B : 2017	mg/l	<0.01
12.	Lead	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.005
13.	Mercury	APHA 23 rd Ed., 3112 B : 2017	mg/l	<0.001
14.	Copper	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.001
15.	Zinc	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.65
16.	Total Chromium	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.02

Reviewed By :

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Dy. Quality Manager

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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. - Neturia, Dist - Purulia (WB) - 723121	Sampling Date	: 08.09.2022		
		Period of Analysis	: 12.09.2022 - 17.09.2022		
		Date of Issue	: 19.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Effluent Water
Location	: Composite Sample of Equalization Tanks	Sample ID No.	: ENV/613/Sep./W/M(ii)	Report No.	: ENV/613/Sep./TR(W)/M(ii)/22-23

SL. NO.	PARAMETERS	TEST METHOD	UNIT	RESULTS
1.	pH	APHA 23 rd Ed., 4500 H*B : 2017	-	6.82
2.	Total Suspended Solids	APHA 23 rd Ed., 2540 D : 2017	mg/l	24.0
3.	Total Dissolved Solids	IS 3025 (Part 16) : 1984 : 2014	mg/l	1210.0
4.	Dissolved Oxygen	APHA 23 rd Ed., 4500 - OC : 2017	mg/l	6.8
5.	COD	APHA 23 rd Ed., 5220 B/C/D : 2017	mg/l	42.0
6.	BOD [3 Day's at 27°C]	APHA 23 rd Ed., 5210 B : 2017	mg/l	6.0
7.	Oil & Grease	APHA 23 rd Ed., 5520 B/D/ : 2017	mg/l	<1.0
8.	Residual Chlorine	APHA 23 rd Ed., Cl-B : 2017	mg/l	<0.04
9.	Chloride	APHA 23 rd Ed., 4500 Cl-B/D : 2017	mg/l	266.0
10.	Iron	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.82
11.	Arsenic	APHA 23 rd Ed., 3114 B : 2017	mg/l	<0.01
12.	Lead	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.005
13.	Mercury	APHA 23 rd Ed., 3112 B : 2017	mg/l	<0.001
14.	Copper	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.001
15.	Zinc	APHA 23 rd Ed., 3111 B : 2017	mg/l	0.70
16.	Total Chromium	APHA 23 rd Ed., 3111 B : 2017	mg/l	<0.02

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

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E-mail : info@envirocheck.in / envirocheck50@gmail.com ■ Website : www.envirocheck.in
Branch Office : Siliguri ■ Haldia ■ Durgapur ■ Dhanbad ■ Gangtok ■ Port Blair ■ Dehradun ■ New Delhi
Overseas : UAE ■ Qatar ■ Netherlands



ENVIROCHECK

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



FORMAT NO. ENV/FM/55

TEST REPORT

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 09.09.2022		
		Period of Analysis	: 12.09.2022 - 17.09.2022		
		Date of Issue	: 19.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ground Water
Location	: Madandih Village Tubewell	Sample ID No.	: ENV/613A/Sep./W /M	Report No.	: ENV/613A/Sep./TR(W)/M/2 2-23

PARAMETERS		METHOD	UNIT	RESULTS
1.	Colour	APHA 23 rd Ed., 3111 B : 2017	Hazen	1.0
2.	Odour	APHA 23 rd Ed., 2150 B : 2017	--	Odourless
3.	pH	APHA 23 rd Ed., 4500 - H+B : 2017	--	6.70
4.	Taste	APHA 23 rd Ed., 2160 B : 2017	--	Acceptable
5.	Turbidity	APHA 23 rd Ed., 2130 B : 2047	NTU	1.23
6.	Total Dissolved Solids	APHA 23 rd Ed., 2540 B : 2017	mg./l	710.0
7.	Calcium	APHA 23 rd Ed., 3500 Ca-B : 2017	mg./l	56.11
8.	Chloride	APHA 23 rd Ed., 4500 Cl-B/D : 2017	mg./l	51.72
9.	Iron	APHA 23 rd Ed., 3111 B : 2017	mg./l	0.68
10.	Magnesium	APHA 23 rd Ed., 3500 Mg-B : 2017	mg./l	9.6
11.	Nitrate	APHA 23 rd Ed., NO ₃ -E : 2017	mg./l	3.80
12.	Sulphate	APHA 23 rd Ed., 4500 SO ₄ -E : 2017	mg./l	41.50
13.	Total Alkalinity	APHA 23 rd Ed., 2320 B : 2017	mg./l	180.0
14.	Total Hardness	APHA 23 rd Ed., 2340 C : 2017	mg./l	162.0
15.	Arsenic	IS 3025 (Part 37) : 1988 : 2014	mg./l	<0.01
16.	Chromium	APHA 23 rd Ed., 3111 Cr-B : 2017	mg./l	<0.02
17.	Boron	APHA 23 rd Ed., 4500 B-C : 2017	mg./l	<0.1

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

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Overseas : UAE ■ Qatar ■ Netherlands



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FORMAT NO. ENV/FM/55

TEST REPORT

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 09.09.2022		
		Period of Analysis	: 12.09.2022 - 13.09.2022		
		Date of Issue	: 19.09.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ground Water
Location	: Madandih Village Tubewell	Sample ID No.	: ENV/613A/Sep./W /M	Report No.	: ENV/613A/Sep./TR(W)/M/2 2-23

	PARAMETERS	METHOD	UNIT	RESULTS
1.	Total Coliform	9222 B, APHA 23 rd , 2017	CFU/100 ml.	<1.0
2.	E. Coli	9222 I, APHA 23 rd Ed., 2017	CFU/100 ml.	<1.0

Remarks : a) CFU indicates Colony Forming Unit.

b) <1.0 indicates "Absent" No Colony Developed i.e. No Coliform Found.

Reviewed By :

DURBADAL CHAKRABORTY
Dy. Quality Manager

Approved By :

PRIYANKA MUKHERJEE
Technical Manager, Microbiology

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Overseas : UAE ■ Qatar ■ Netherlands

Annexure-8



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. – Neturia, Purulia – 723121
3. Report No. : ENV/613A/TR(S)/M(i)/22-23
4. Date of sampling : 07.09.2022
5. Reporting Date : 15.09.2022
6. Type of sample : E.S.P Bed Ash
7. Location : CFBC Boiler Ash

Sl. No.	PARAMETERS	METHOD	UNIT	RESULTS
1.	Zinc (Zn)	EPA 1311 : 1992 APHA 23 rd Ed., 3111 B : 2017	mg./l	6.20
2.	Copper (Cu)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.6 : 1998	mg./l	4.40
3.	Nickel (Ni)	EPA 1311 : 1992 APHA 23 rd Ed., 3111 B : 2017	mg./l	2.20
4.	Lead (Pb)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.9 : 1998	mg./l	1.80
5.	Cadmium (Cd)	EPA 1311 : 1992 EPA 3050 B, 1996/IS 3050 (Part 46)	mg./l	<0.002

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. Sumit Chowdhury

Dr. SUMIT CHOWDHURY
Technical Manager

H.O. : 63/B, Rastraguru Avenue, Kolkata -700028 ■ Ph. 033 25792891/ 25497490 ■ Fax : 033 25299141
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ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
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. – Neturia, Purulia – 723121
3. Report No. : ENV/613A/TR(S)/M(ii)/22-23
4. Date of sampling : 07.09.2022
5. Reporting Date : 15.09.2022
6. Type of sample : Slag
7. Location : SMS Furnace Slag

Sl. No.	PARAMETERS	METHOD	UNIT	RESULTS
1.	Iron (Fe)	EPA 1311 : 1992 EPA 3050 B, 1996/EPA 200.9 : 1998	mg./l	6.60
2.	Zinc (Zn)	EPA 1311 : 1992 APHA 23 rd Ed., 3111 B : 2017	mg./l	5.50
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 rd Ed., 3111 B : 2017	mg./l	2.10
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

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. Ajoy Paul

Dr. AJOY PAUL
Quality Manager

Annexure-9A

ECL



EASTERN COALFIELDS LIMITED

(A Subsidiary of Coal India Ltd.)

Office of the General Manager, Sodepur Area

P.O. – Sunderchak, P.S - Kulti,

Dt. Paschim Bardhaman (W.B), Pin-713 360

Website – www.easterncoal.gov.in

Dated: - 24.02.2022

To

The Authority of Sakhambhari Ispat & Power Limited

Vill: Madandih

P.O: Bartoria

Dist: Purulia

Pin: 723121

Dear Sir,

In response to your letter dated: 18.02.2022, as per discussion with you, you are hereby requested to fill up an illegally Mined place at Bicched Bandh area near Narsamuda Colliery of Sodepur Area, ECL with fly ash, with active help of State Administration.

Yours faithfully


Area Personnel Manager

Sodepur Area

Annexure-9B

B.S.C REFRACTORIES AND CERAMICS

Mob.: 9434071611
8145812111

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

AGREEMENT

Ref. No.

Date : 12.05.2015.....

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

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

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

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

Period of Agreement: This agreement shall remain in force for a period of 10 years from the date of Commissioning of the Proposed Captive Power Plant of SIPL.

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

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

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

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

In presence of:

Witness No. 1: Ayush Agarwala
Ayush Agarwala

Witness No. 2: Sunil Das

Annexure-10

PHOTOGRAPHS OF CORPORATE SOCIAL RESPONSIBILITY

Painting at Birinchidham Temple



Blanket Distribution



Food Grains Distribution





Annexure-11

WEST BENGAL POLLUTION CONTROL BOARD

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



Consent Letter Number : **CO110135**

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

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

Date : **09-08-18**

Consent to Operate

under

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

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

M/S. Shakambhari Ispat & Power Ltd.

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

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

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

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

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

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

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

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



For and on behalf of the State Board

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

[Handwritten signature]
09/08/18

ANNEXURE

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

Conditions :

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

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

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

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

Continued.....

(4)

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

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

Table-II

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

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

Continued.....

(5)

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

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

Pin-723121

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Continued.....

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

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

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

Additional Conditions Please See Annexure 'B' attached.

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

ANNEXURE - 'A'

Consent Letter Sl. No.: collo135.....

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

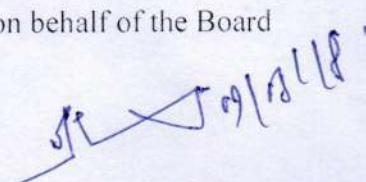
Name of the Unit: **M/s Shakambhari Ispat & Power Ltd.**

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

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

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

For and on behalf of the Board


Environmental Engineer
Asansol Regional Office, WBPCB

ANNEXURE – 'B'

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

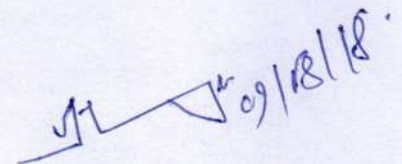
WEST BENGAL POLLUTION CONTROL BOARD
Paribesh Bhawan; Bldg. No.-10A, Block – L.A., Sector – III
Salt Lake City, Kolkata – 700 106

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

ADDITIONAL CONDITIONS

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

For and on behalf of the Board



Environmental Engineer
Asansol Regional Office, WBPCB

WEST BENGAL POLLUTION CONTROL BOARD

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



Consent Letter Number : **CO107584**

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

Expansion

Date : **06.12.2018**

Consent to Operate

under **Application no. CO0000000207553**

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

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

Shakambhari Ispat & Power Ltd.,

WEST BENGAL

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

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

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

(Detailed address of the manufacturing unit)

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

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

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

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



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

For and on behalf of the State Board

[Signature] / 06.12.2018

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

ANNEXURE

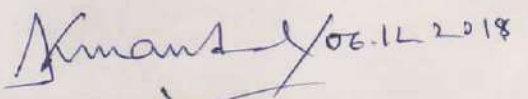
Consent to **Shakambhari Ispat & Power Ltd.,**
 for its unit at **Vill: Madandih, P.O: Barteria, P.S: Neturia, Dist. Purulia,**
Pin - 723121, W.B. India.

Conditions :

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

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

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

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

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

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

Table - II (See Annexure)

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

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

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

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

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

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

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

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

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

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

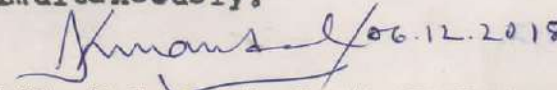
(Member Secretary/Chief Engr./Sr. Env. Engr./Env. Engr./Asst. Env. Engr.)

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

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

Additional Conditions 1) See Annexure.

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


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



WEST BENGAL POLLUTION CONTROL BOARD

(Department of Environment, Government of West Bengal)

Office of the Senior Environmental Engineer

Kankinara Circle Office

Panpur More, P.O. – Narayanpur, Kankinara, 24-Parganas (N), Pin – 743 126

Special Condition

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

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

Table-II

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

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

K. Mansingh 06.12.2018
For and on behalf of the Board

WEST BENGAL POLLUTION CONTROL BOARD

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



Consent Letter Number : CO113782

Expansion

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

Date : 06/09/2019

Consent to Operate

under

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

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

M/s. Shakambhari Dpat & Power Limited

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

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

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

(Detailed address of the manufacturing unit)

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

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

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

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



For and on behalf of the State Board

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

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

ANNEXURE

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

Conditions :

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

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

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

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

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

Continued.....

CO113782

Consent to ⁽³⁾ M/s. Shakambhari Tapal & Power Limited.
 for its unit at Vill: Madandih, P.O. - Bantoria, P.S. - Neturia,
Dist - Purulia, Pin - 723121


Table-I

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

09. The Applicant falls in theCategory 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 →300.0.....KL
 (Water used for gardening should be included in this category of use)
 - Domestic purpose →65.0.....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.


 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

(4)

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

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

Table-II

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

Handwritten signature
06/09/19

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

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

113782

(5)

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

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

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

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

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

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

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

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

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

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

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

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

Additional Conditions See annexure .

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

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

Annexure to Consent Letter Number – **CO113782**

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

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

Atardi
06/09/19

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

16/02/20

WEST BENGAL POLLUTION CONTROL BOARD

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



Consent Letter Number : COI28922

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 and Rules and Orders made thereunder, hereby grants its consent to :

M/s. Shakambhari Ispat & 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. - Bantonia, P.S. - Naluria, 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./St. Env. Engr. / Env. Engr. / Asst.-Env.-Engr.)
Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

13/02/20

(2)

ANNEXURE

Consent to M/s. Shakambhari Ispat & Power Limited.
for its unit at Villi Modandih, 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. 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-I in page 03.

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

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

C0128922

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

Table-I

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

(4)

Consent to M/s. Shakambhari Spat & Power Limited
for its unit at Villi 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 ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)			
S-1	30m existing	01 no. Induction Furnace (25 Ton/batch) with existing APED (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.)

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

C0128922

(5)

Consent to M/s. Shakambhari Tspal & Power Limited.
for its unit at Vill: MadanSih, P.O - Bantonica, P.S. - Netuaia,
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_{eq}
Day Time (06 a.m. to 09 p.m.)	75
Night Time (09 p.m. to 06 a.m.)	70

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

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

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

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

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

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

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

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

Continued.....

Consent to M/s. Shakambhari Ispat & 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 *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 alteration/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. Inv. Engr. / Inv. Engr. / Asst. Env. Engr.)

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

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-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(Prl/Cont(81)/2002Part-III dated 30/07/2019 & 805-WPBA/Red(Prl/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 8th Induction Furnace- 1x25 Ton/batch for manufacturing of M.S.Billets-4700 MT/Month.

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

"Expansion"

WEST BENGAL POLLUTION CONTROL BOARD

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



Consent Letter Number : CO128973

Memo Number : 281-WPBA/Reg(P-1)/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. - Barteria,
P.S. - Heluria, 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. Shakambhari Ispat & Power Ltd.
 for its unit at Vill: Madandih, P.O. - Bastoria, P.S. - Nethuria,
Dist- Purulia, Pin- 723121

Conditions :

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

Sl. No.	Name of major products and by-products	Quantity manufactured per month
01	M. S. Billets	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 & 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. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

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

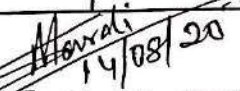
(4)

Consent to M/s. Shakambhari Dept & Power Ltd.
for its unit at Vill: Madandih, P.O. - Bastonia, 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 ³ /hr.	Velocity of gas emission - m/sec	Concentrations of parameters not to exceed			Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)		
S-1								
S-2								
S-3								
S-4								
S-5								
S-6								
S-7								
S-8								
S-9								
S-10								


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

CO128973

(5)

Consent to M/s. Shakambhari Espal & Power Ltd.
 for its unit at Vill. Madandih, P.O. - Bastonia, 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 :- 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.)

Harde
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: Madandik, 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 *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 - III.

(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 - I

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.

Stack No.	Stack height from G.L (in mts.)	Stack attached to (sources and control system, if any)	Volume Nm ³ /hr	Velocity of gas emission m/sec	Concentration of parameters not to exceed				Frequency of emission sampling
					PM (mg/Nm ³)	CO (% v/v)			
S-1	30.0 m (common)	Induction Furnaces (2x25Ton/batch) provided with Individual APCD(Bag Filter)	-	-	50	1			Quarterly
S-2	30.0 m	Individual stack, individual APCD -Bag Filter provided to Submerged Electric Arc Furnaces(2x9MVA)	-	-	50	1			Quarterly


 Environmental Engineer
 West Bengal Pollution Control Board
 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, Dist- Purulia, PIN--723121.

Type of waste	Quantity	Treatment	Disposal
Ferro Manganese Slag	3050 MT/month	-	Reused 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	-	Reused in process
Dust from SEAF de-dusting unit	88 MT/month	-	Reused in process
Dust from IF de-dusting unit	12 MT/month	-	Land filling


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



West Bengal Pollution Control Board
(Department of Environment, Government of West Bengal)
Paribesh Bhawan, Bldg. 10A, Block LA
Sector III, Bidhannagar, Kolkata 700 106
Tel: 2335-6730, 2335-9088/7428/8211/6731/0261/8861
Fax: (0091) (033) 2335-2813

Memo No. **233-** WPBA/Red(Prl)/Cont(82)/02-Pt-VI Date : **16 / 03 / 2021**

To

M/s. Shakambhari Ispat & Power Limited
Vill- Madandih, P.O-Bartoria,
P.S-Neturia, Dist- Purulia, PIN--723121.

Sub.: Amendment of Consent to Operate for your unit located at Vill- Madandih, P.O-Bartoria,
P.S-Neturia, Dist- Purulia, PIN--723121.

Ref. (i) *Consent to Operate* certificate CO128973 issued vide memo no.281-
WPBA/Red(Prl)/Cont(82)/02- Pt-VI dated 14-08-2020.
(ii) Your letter Ref no.SIPL/CTO-AMEND/JAN/2021 dated 15.01.2021.

Sir,

In reference to the above, this is to inform you that the following amendments are made in the above mentioned Consent to Operate certificate issued by this office:-

Conditions:-

01. The consent is valid for manufacture of:-

CTO (CO128973) issued dt. 14/08/2020 (2x9 MVA) for manufacturing	Amendment of CTO (CO128973) (2X9 MVA) for manufacturing
Ferro Manganese-3050 TPM Or Silico Manganese -2210 TPM	Ferro Manganese/Silico Manganese/Ferro Chrome/Ferro Silicon/Pig Iron – 31575 TPA (Maximum) / 2632 TPM(Maximum) (any of above)

The unit shall abide by all other condition as mentioned in amendment Environmental Clearance (EC) issued vide no. F.No.J-11011/201/2013-IA.II(I) dated 29.04.2020 and NOC(NO164512) issued vide memo no.246-2N-21/2012 (E) dated 14.09.2020 in favour of the expansion project.

This letter may be treated as an annexure to the *Consent to Operate* certificate no. CO128973 dated 14.08.2020. All other terms & conditions of the above mentioned Consent to Operate will remain unchanged.

Thanking you,

Yours faithfully,

Mardi
16/03/21

Environmental Engineer
Operation & Execution Cell

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 : C0128998

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

(Detailed address of the manufacturing unit)

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

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

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

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



For and on behalf of the State Board

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

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

ANNEXURE

Consent to M/s. Shaksambani Dept & Power Limited
 for its unit at Villi Madandih, P.O. - Bantania, P.S. - Netunia,
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. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

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

Consent to M/s. Shakambhari Ispat & Power Limited
 for its unit at Villi 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 ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)			
S-1		<i>As per existing arrangement.</i>							
S-2									
S-3									
S-4									
S-5									
S-6									
S-7									
S-8									
S-9									
S-10									

Handwritten signature
13/11/20

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

Continued.....

C0128998

(5)

Consent to M/s. Shakambhari Dept & Power Limited
for its unit at Vill: Madandih, P.O. - Bantonia, 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 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.)

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

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

Expansion CFO

WEST BENGAL POLLUTION CONTROL BOARD

'Paribesh Bhawan'

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

Salt Lake City, Kolkata-700 098



Consent Letter Number : CO/31924

Memo Number : 46-WPBA/Red(Pol)/cont(82)/02 Part - VI

Date : 10/03/2021

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. - Bartonia,
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.

This consent is valid for operating 1X100TPD & 1X600TPD
DRI Kilns for production of Sponge Iron - 224000 Ton/year.
and both the kilns are provided with WHRBs (10TPH & 64TPH).



For and on behalf of the State Board

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

Haridi
10/03/21
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. - Bantoria, 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 ^{Year}
01	Sponge Iron	224000 TPA
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 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 Nil KL.

06. The Applicant shall discharge liquid effluent to Soakpit (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.)

Marschi
10/03/25
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

Continued.....

Consent to M/s. Shakambhari Ispat & Power Ltd.
 for its unit at Vill:- Madandih, P.O. - Bastoria, 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 Nm ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)			
S-1					See Annexure - 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.)

Hardi
 10/03/21
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

Continued.....

C0131924

(5)

Consent to M/s. Shakambhari Dept & Power Ltd.
 for its unit at Villi - Madandih, P.O. - Bastonia, P.S. - Nalbaria,
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	18700 MT/Month	Rotary Kiln (100 TPD & 600 TPD)
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
Dolochar	3135 MT/Month	-	to be used in AFBC Boiler.

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 ¹⁰ p.m.)	65
Night Time (10 ¹⁰ 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.)

Murali
 10/03/21
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

Continued.....

Consent to M/s. Shakambhari Ispat & Power Ltd
 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 *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 - II

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

Howdi
10/03/21
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

Annexure-II to Consent Letter Number – **CO131924**

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 abide by all other condition as mentioned in amendment Environmental Clearance (EC) issued vide no. F.No.J-11011/201/2013-IA.II(I) dated 29.04.2020 and amendment NOC issued vide memo no.246-2N-09/2012 (E) dated 14.09.2020 in favour of the expansion project.
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. The Consent to Operate is valid for operation of DRI Kilns(1x100 TPD & 1X600TPD) for manufacturing of sponge iron-2,24,000 ton/year and the unit should restricted the total production capacity-5,44,000 ton/year considering all DRI Kilns(4x100 TPD, 2X350 TPD & 1X600TPD).


Mausdi
10/03/21
Environmental Engineer
West Bengal Pollution Control Board
Environmental Engineer
W. B. Pollution Control Board
Operation & Execution Cell

Annexure – I

Annexure to Consent Letter Number – **CO131924**

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.

Stack No.	Stack height from G.L (in mts.)	Stack attached to (sources and control system, if any)	Volume Nm ³ /hr	Velocity of gas emission m/sec	Concentration of parameters not to exceed				Frequency of emission sampling
					PM (mg/Nm ³)	CO (% v/v)			
1	35.0 m (common with 3 rd DRI Kiln)	4 th Rotary Kiln of capacity 100 TPD- 1(one) no. with WHRB-1(one) no. – 10 TPH provided with individual 3 field ESP and connected with Common stack of existing 100TPD 3 rd DRI Kiln	-	-	50	-			Quarterly
2	72.0 m	Rotary Kiln of capacity 600TPD- 1(one) no. with WHRB-1(one) no. – 64 TPH provided with individual 5 field ESP and connected with individual stack.	-	-	50	-			Quarterly
-	-	Pneumatic dust conveying to ABC from Cooler Discharge for 4 th DRI Kiln(100 TPD)	-	-	-	-			-
-	-	Pneumatic dust conveying to ABC from Cooler Discharge for DRI Kiln(600 TPD)	-	-	-	-			-
4	30.0 (common)	Product House for 4 th DRI Kiln(100 TPD) with separate bag filter and connected with existing stack of product house of 3x100TPD Kilns	-	-	50	-			Quarterly


 10/03/25
 Environmental Engineer
 W. B. Pollution Control Board
 Operation & Execution Cell

5	30.0 (common)	Product House for DRI Kiln(600 TPD) with separate bag filter and connected with existing stack of product house of 2x350TPD Kilns	-	-	50	-			Quarterly
6	30.0 (common)	Iron Ore Crusher for 4 th DRI Kiln(100 TPD) with separate bag filter and connected with existing stack of iron ore crusher of 3x100TPD Kilns	-	-	50	-			Quarterly
7	30.0 (common)	Iron Ore Crusher for DRI Kiln(600 TPD) with separate bag filter and connected with existing stack of iron ore crusher 2x350 TPD Kilns	-	-	50	-			Quarterly
8	30.0 (common)	Coal Crusher for 4 th DRI Kiln(100 TPD) with separate bag filter and connected with existing stack of coal crusher & silo of 3x100TPD Kilns	-	-	50	-			Quarterly
9	30.0 (common)	Coal Crusher for DRI Kiln(600 TPD) with separate bag filter and connected with existing stack of coal crusher & silo of 2x350 TPD Kilns	-	-	50	-			Quarterly
10	30.0 (common)	Intermediate Bin & Product Separation House for 4 th DRI Kiln(100 TPD) with separate bag filter with stack followed by pneumatic dust conveying to common silo is connected with existing stack of Intermediate Bin & Product Separation House of 3x100 TPD Kilns	-	-	50	-			Quarterly
11	30.0	Intermediate Bin & Product Separation House for DRI Kiln(600 TPD) with separate bag filter with separate stack followed by pneumatic dust conveying to common silo of Intermediate Bin & Product Separation House of 2x350 TPD Kilns	-	-	50	-			Quarterly

Handwritten:
10/03/21

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 : CO132113

Memo Number : 348-WPBA/Red(P&I)/Cont(82)/02

Date : 22/12/2021

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 :

Ms. Shakambhari Tspat & Power Ltd.

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

(hereinafter referred to as Applicant) for its unit located at existing premises Vill. Madandih,
P.O - Bastonia, P.S - Netunia, 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.)

W. B. Pollution Control Board
Operation & Execution Cell



ANNEXURE

Consent to M/s. Shakambhari Ispat & Power Ltd.
 for its unit at existing premises Kill. Madandih, P.O. - Bastania,
P.S. - Aheturia, 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	Ferro Manganese ore	2632 MT/Month
02	Silico Manganese ore	2632 MT/Month
03	Ferro Chrome ore	2632 MT/Month
04	Ferro Silicon ore	2632 MT/Month
05	Pig Iron ore in combination of any	2632 MT/Month
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 1.6 KL.

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

06. The Applicant shall discharge liquid effluent to Septic Tank after treatment (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.

Hardi
22/12/21
 (Member Secretary/Chief Engr./ Sr. Env. Engr./ Env. Engr./ Asst. Env. Engr.)

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

Continued.....

C0132113

Consent to M/s. Shakambhari Tapat & Power Ltd.⁽³⁾

for its unit at existing premises Villi Madandih, P.O. - Bastonia,
P.S. - Neturia, Dist - Purulia, Pin - 723121

Table-I

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

09. The Applicant falls in the Red 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 → 152.00 KL
 (Water used for gardening should be included in this category of use)
 - Domestic purpose → 2.00 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.

Harshi
22/12/21
 (Member Secretary/Chief Engr./ Sr. Env. Engr. / Env. Engr. / Asst. Env. Engr.)

(4)

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

for its unit at existing premises Vill. 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 : 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 ³ /hr.	Velocity of gas emission m/sec	Concentrations of parameters not to exceed				Frequency of emission sampling
					SPM (mg/Nm ³)	CO (%v/v)			
S-1									
S-2									
S-3									
S-4									
S-5									
S-6									
S-7									
S-8									
S-9									
S-10									

M. B. Ghosh
22/12/21

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

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

Continued.....

CO132113

(5)

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

for its unit at existing premises Vill. Madlandik, P.O. - Basteria,
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 :- 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 ¹⁰ 09 p.m.)	75
Night Time (¹⁰ 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.)

W. B. Pollution Control Board
Operation & Execution Cell

Continued.....

Consent to M/s. Shakambhari Ispat & Power Ltd.
 for its unit at existing premises Vill. Madanidih, P.O. - Bantonia,
P.S. - Netunia, 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

Annexure – I

Annexure to Consent Letter Number – **CO132113**

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.

Stack No.	Stack height from G.L. (in mts.)	Stack attached to (sources and control system, if any)	Volume Nm ³ /hr	Velocity of gas emission m/sec	Concentration of parameters not to exceed				Frequency of emission sampling
					PM (mg/Nm ³)	CO (% v/v)			
1	30.0 m	Individual stack, individual APCD –Bag Filter provided to Submerged Electric Arc Furnaces(2x9MVA)	-	-	50	1			Quarterly
2	10.50 m	D.G.Set(500 KVA) with canopy system	-	-	150				Quarterly


Sr. Environmental Engineer
West Bengal Pollution Control Board

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

Annexure – II

Annexure to Consent Letter Number – CO132113

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.

Type of waste	Quantity	Treatment	Disposal
Ferro Manganese slag	3050 MT/month	-	Re-use in process
Silico Manganese slag	2210 MT/month	-	Land filling
Ferro chrome slag	3050 MT/month	-	to be TSDF facility
Ferro Silicon slag	263 MT/month	-	Re-use in Induction Furnace
Pig Iron slag	1315 MT/month	-	To be sold to cement mfg unit
Dust from SLAF de-dusting unit	88 MT/month	-	Reused in process

Hausdi
22/12/21
Sr. Environmental Engineer
West Bengal Pollution Control Board

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

Annexure-III

Annexure to Consent Letter Number – CO132113

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 shall abide by all other condition as mentioned in amendment Environmental Clearance (EC) issued vide no. F.No.J-11011/201/2013-1A.II(I) dated 29.04.2020 and NOC(NO164512) issued vide memo no.246-2N-21/2012 (E) dated 14.09.2020 in favour of the expansion project.
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 Submerged Electric Arc Furnaces(2x9MVA) for ferro alloy plant of capacity-31575 TPA.


22/12/21
Sr. Environmental Engineer
West Bengal Pollution Control Board

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

Annexure-12A



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001 : 2018



NOISE MONITORING REPORT
Shakambhari Ispat & Power Limited

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

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

Report No : ENV/210/M/(TR)N/I/22-23

Sampling Locations :	Near Security Gate – Southern Side	Date of Study :	08/9/2022
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	67.3	70.1	68.92	73.74
7:00 AM to 8:00 AM	71.0	74.0	72.75	
8:00 AM to 9:00 AM	73.6	76.8	75.49	
9:00 AM to 10:00 AM	74.1	77.3	75.99	
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	41.0	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	64.6	69.1	67.41	
8:00 PM to 9:00 PM	62.8	65.9	64.62	
9:00 PM to 10:00 PM	60.5	62.6	61.68	

Date of Study :	08/09/2022 to 09/09/2022	Night time :	10 PM to 6 AM
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Time(hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	58.2	59.6	58.96	61.99
11:00 PM to 12:00 AM	57.5	58.3	57.92	
12:00 AM to 1:00 AM	57.2	59.9	58.76	
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	62.5	65.3	64.12	
5:00 AM to 6:00 AM	63.8	66.7	65.49	

L_{min} : Minimum Noise level

L_{max} :Maximum Noise level

L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 10/09/2022



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

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



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



NOISE MONITORING REPORT Shakambhari Ispat & Power Limited

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

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

Report No : ENV/210/M/(TR)N/II/22-23

Sampling Locations :	Madandih Village (0.5 km from Plant) – Eastern Side	Date of Study :	08/9/2022
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	40.2	50.1	47.51	54.02
7:00 AM to 8:00 AM	41.9	51.5	48.94	
8:00 AM to 9:00 AM	42.8	51.6	49.13	
9:00 AM to 10:00 AM	45.7	54.6	52.12	
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	40.2	43.5	42.16	
9:00 PM to 10:00 PM	40.0	42.8	41.62	

Date of Study :	08/09/2022 to 09/09/2022	Night time :	10 PM to 6 AM
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Time(hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	38.2	41.9	40.43	42.60
11:00 PM to 12:00 AM	37.5	40.2	39.06	
12:00 AM to 1:00 AM	36.5	39.9	38.52	
1:00 AM to 2:00 AM	38.6	42.8	41.19	
2:00 AM to 3:00 AM	39.4	41.9	40.83	
3:00 AM to 4:00 AM	40.1	43.5	42.12	
4:00 AM to 5:00 AM	40.9	42.6	41.83	
5:00 AM to 6:00 AM	42.6	50.3	47.97	

L_{min} : Minimum Noise level

L_{max} :Maximum Noise level

L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 10/09/2022



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

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



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



NOISE MONITORING REPORT

Shakambhari Ispat & Power Limited

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

MONITORED BY :

ENVIROCHECK
189, Rastraguru Avenue,
Calcutta - 700 028

Report No : ENV/210/M/(TR)N/III/22-23

Sampling Locations :	Near Power Plant Control Room – Western Side	Date of Study :	08/9/2022
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	63.8	72.5	70.04	71.74
7:00 AM to 8:00 AM	64.1	73.8	71.23	
8:00 AM to 9:00 AM	65.8	74.1	71.69	
9:00 AM to 10:00 AM	66.4	75.8	73.26	
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	62.4	68.5	66.44	
9:00 PM to 10:00 PM	60.3	67.4	65.16	

Date of Study :	08/09/2022 to 09/09/2022	Night time :	10 PM to 6 AM
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Time (hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	61.4	64.8	63.42	65.65
11:00 PM to 12:00 AM	60.2	64.5	62.86	
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	62.8	69.4	67.25	
5:00 AM to 6:00 AM	63.1	70.8	68.47	

L_{min} : Minimum Noise level

L_{max} :Maximum Noise level

L_{eq} :Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 10/09/2022



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

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 (033-25792891/25497490, Fax : 033-25299141
Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 (033-25792889
Email : envcheck@cal2.vsnl.net.in/envirocheck50@gmail.com / Website : www.envirocheck.org
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Overseas : • UAE • Qatar • Netherlands



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001 : 2018



NOISE MONITORING REPORT

Shakambhari Ispat & Power Limited

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

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

Report No : ENV/210/M/(TR)N/IV/22-23

Sampling Locations :	Near Laboratory Building (SMS Division) – Northern Side	Date of Study :	08/9/2022
Category :	Steel & Power Unit	Day time :	6 AM to 10 PM

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Day time L _{eq}
6:00 AM to 7:00 AM	62.6	68.3	66.32	70.19
7:00 AM to 8:00 AM	64.6	71.5	69.30	
8:00 AM to 9:00 AM	63.9	75.3	72.59	
9:00 AM to 10:00 AM	65.4	76.2	73.54	
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	62.3	68.4	66.34	
7:00 PM to 8:00 PM	61.9	64.5	63.39	
8:00 PM to 9:00 PM	60.2	63.5	62.16	
9:00 PM to 10:00 PM	60.0	62.8	61.62	

Date of Study :	08/09/2022 to 09/09/2022	Night time :	10 PM to 6 AM
-----------------	--------------------------	--------------	---------------

Time (hrs.)	L _{min}	L _{max}	L _{eq}	Night time L _{eq}
10:00 PM to 11:00 PM	59.5	62.5	61.25	61.04
11:00 PM to 12:00 AM	58.4	60.8	59.76	
12:00 AM to 1:00 AM	57.3	59.4	58.48	
1:00 AM to 2:00 AM	53.7	57.8	56.22	
2:00 AM to 3:00 AM	52.4	56.8	55.13	
3:00 AM to 4:00 AM	60.4	62.9	61.83	
4:00 AM to 5:00 AM	61.6	64.8	63.49	
5:00 AM to 6:00 AM	62.9	65.3	64.26	

L_{min} : Minimum Noise level

L_{eq} : Equivalent sound energy

Compiled by : (Signature)
Dr. Ajoy Paul

Envirocheck Seal
Date : 10/09/2022

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



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

Annexure-12B



ENVIROCHECK

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



FORMAT NO. : ENV/FM/53

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/02
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/210/M/(TR)N/1/22-23
8.	Date of Study	: 08/09/2022
9.	Reporting Date	: 13/09/2022
10.	Method No.	: IS: 9989 - 1981
11.	Time of Duration of Noise	: 20 Minutes
12.	Height from Ground Level	: 4 feet
13.	Sample Monitoring by	Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time :10:00 - 10:20A.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)	81.4	83.2	82.39	East Side
02.	dB(A)	82.2	84.5	83.50	West Side
03.	dB(A)	82.8	85.6	84.42	North Side
04.	dB(A)	78.8	81.4	80.29	South Side
Average dB(A) Leq				82.65	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<



ENVIROCHECK

Recognised by MoEF&CC, WBPCB & JSPCB
Accredited by NABL (ISO/IEC 17025:2017)
Certified by ISO 9001:2015, ISO 14001:2015 & ISO 45001 : 2018



Certificate No. TC-6014



FORMAT NO. : ENV/FM/53

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/02
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/210/M/(TR)N/II/22-23
8.	Date of Study	: 08/09/2022
9.	Reporting Date	: 13/09/2022
10.	Method No.	: IS: 9989 - 1981
11.	Time of Duration of Noise	: 20 Minutes
12.	Height from Ground Level	: 4 feet
13.	Sample Monitoring by	Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time :10:30 - 10:50A.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)	78.2	81.6	80.22	East Side
02.	dB(A)	79.6	80.8	80.24	West Side
03.	dB(A)	80.4	83.2	82.02	North Side
04.	dB(A)	77.5	81.8	80.16	South Side
Average dB(A) Leq				80.66	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<

H.O. : 63/B, Rastraguru Avenue, Kolkata - 700028 (033-25792891/25497490, Fax : 033-25299141

Laboratory : 189,190&192 Rastraguru Avenue, Kolkata - 700028 (033-25792889

Email : info@envirocheck.in/envirocheck50@gmail.com / Website : www.envirocheck.in

Branch Office : ▪ Siliguri ▪ Haldia ▪ Durgapur ▪ Dhanbad ▪ Gangtok ▪ Port Blair ▪ Dehradun ▪ New Delhi

Overseas : ▪ UAE ▪ Qatar ▪ Netherlands



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FORMAT NO. : ENV/FM/53

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/02
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/210/M/(TR)N/III/22-23
8.	Date of Study	: 08/09/2022
9.	Reporting Date	: 13/09/2022
10.	Method No.	: IS: 9989 - 1981
11.	Time of Duration of Noise	: 20 Minutes
12.	Height from Ground Level	: 4 feet
13.	Sample Monitoring by	Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time :11:00 - 11:20A.M

DAY TIME

3. Location : In front of MCD Control Room DRI - 350 X 2 TPD

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	74.8	78.6	77.10	East Side
02.	dB(A)	76.3	80.2	78.67	West Side
03.	dB(A)	78.5	80.8	79.80	North Side
04.	dB(A)	75.9	81.6	79.62	South Side
Average dB(A) Leq				78.79	

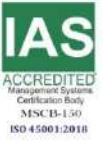
Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<



FORMAT NO. : ENV/FM/53

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/02
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/210/M/(TR)N/IV/22-23
8.	Date of Study	: 08/09/2022
9.	Reporting Date	: 13/09/2022
10.	Method No.	: IS: 9989 - 1981
11.	Time of Duration of Noise	: 20 Minutes
12.	Height from Ground Level	: 4 feet
13.	Sample Monitoring by	Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time :11:00 - 11:20A.M

DAY TIME

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

Sl. No.	Unit	Minimum dB(A)	Maximum dB(A)	Leq dB(A)	Remarks
01.	dB(A)	77.9	79.7	78.89	East Side
02.	dB(A)	75.4	80.2	78.43	West Side
03.	dB(A)	76.8	80.4	78.96	North Side
04.	dB(A)	80.6	81.4	81.02	South Side
Average dB(A) Leq				79.32	

Reviewed By:

Approved By:

Dy. Quality Manager

Quality Manager

>End of Report<



FORMAT NO. : ENV/FM/53

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/02
5.	Deviation from the Sampling Method & Plan	: No
6.	Type of Sample	: Work Zone Noise
7.	Sample ID	: ENV/210/M/(TR)N/V/22-23
8.	Date of Study	: 08/09/2022
9.	Reporting Date	: 13/09/2022
10.	Method No.	: IS: 9989 - 1981
11.	Time of Duration of Noise	: 20 Minutes
12.	Height from Ground Level	: 4 feet
13.	Sample Monitoring by	Mr. Sujoy Dasgupta

RESULT OF NOISE LEVEL STUDY

Time :11:00 - 11:20A.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)	80.6	82.5	82.39	East Side
02.	dB(A)	79.6	82.8	81.49	West Side
03.	dB(A)	80.6	82.2	81.47	North Side
04.	dB(A)	81.7	83.8	82.88	South Side
Average dB(A) Leq				82.05	

Reviewed By:

Dy. Quality Manager

Approved By:

Quality Manager

>End of Report<

Annexure-13



GURU GOPIRAM HOSPITAL

(A Unit of Guru Gopiram Institute of Health Annexe Trust)

Ref. No. 94

Date: 25.07.22

Laxmikanto Malakar Age-27Y/M

BP - 110/70 mm/Hg

W - 85.8 kg

HR - 98 /min (RA)

PR - 10 /min

AD

exp. PA vision

Am^o, J^o, cv^o, U^o od^o

Regular checkups.

DR. DEEPTANGSHU GANGULY
M.B.B.S., M.D.
Reg. No. 66735 (WBMC)

VH < 6/6, N6
6/6, N6

CV < normal
normal.

Dr. Kriti Srivastav
B.OPTM
Regd. No. - 131491210019



Shivakshi Rehabilitation Centre for Speech & Hearing

93

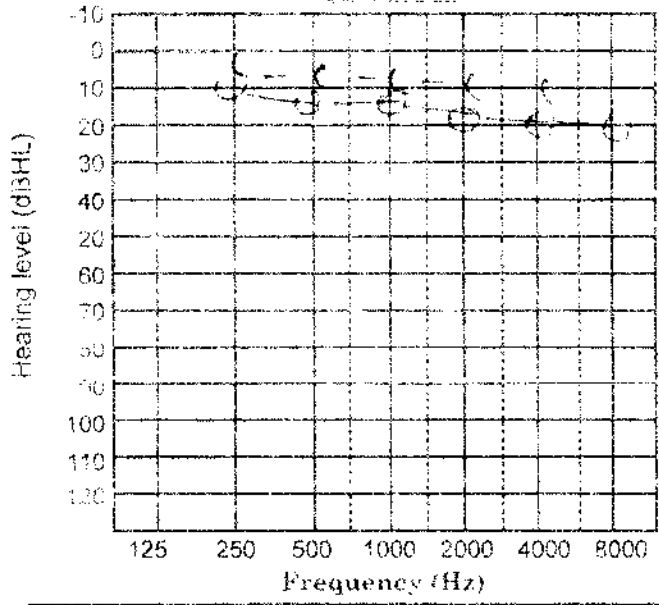
25/07/22

PURE TONE AUDIOMETRY

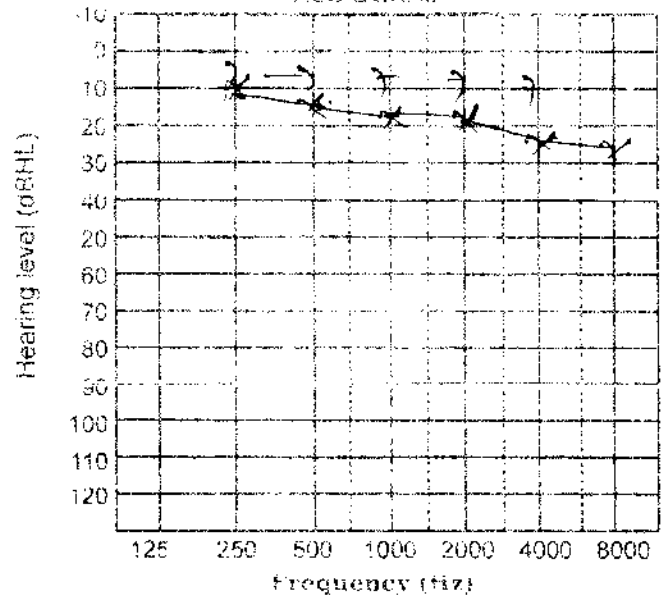
NAME: **LAKHIKANTA MALAKAR**

AGE/SEX: **27m**

RIGHT EAR
AUDIOGRAM



LEFT EAR
AUDIOGRAM



Right Ear	PTA	Left Ear
16.6 : dBHL		18.3 : dBHL

SYMBOLS	(Lt) Ear
AC Unmasked	X
BC Unmasked	>
AC masked	□
BC masked]
No Response	↘

Audiometric responses : Fairly Consistent		
(+)	RINNE TEST	(+)
←	WEBER TEST	→
←	250 Hz	→
←	500 Hz	→
←	1kHz	→
←	2kHz	→
←	4kHz	→

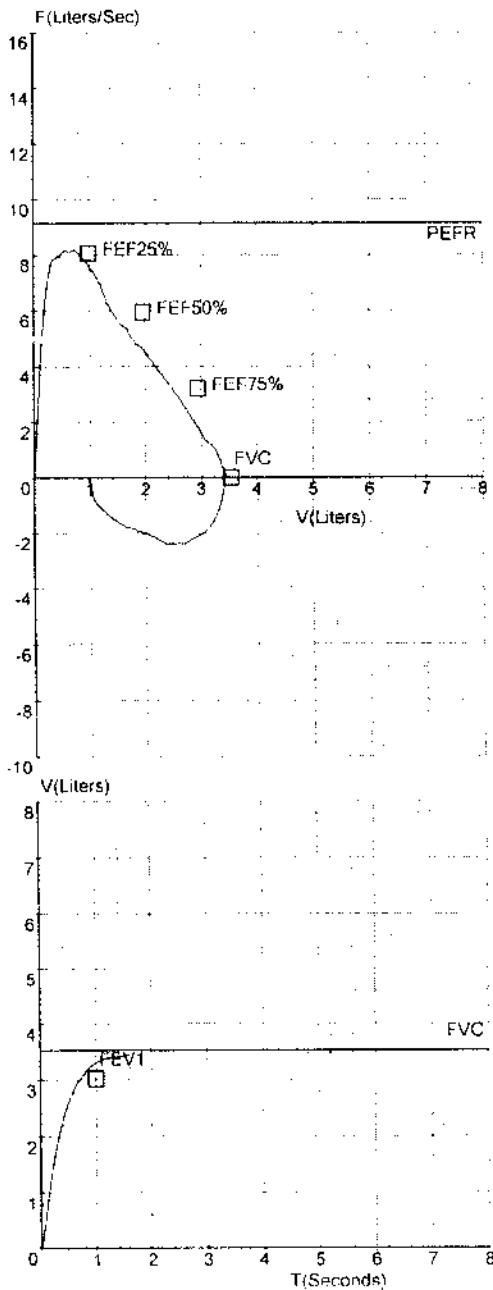
Provisional Diagnosis: *Bilateral hearing sensitivity within normal limits*

Conclude. Normal

SIPL 94 - LAXMIKANTO MALAKAR
 27 Years / Male / Ht 168 Cms / 88 Kgs / Non-Smoker

FVC TEST

Pred Eqn : CLARITY Eth.Corr : 100 Temp : 0°C
 Date: 25-07-2022 (T1) Ref By : NONE



Parameter	Pred	Pre	Pre%	Post	Post%	Imp%
FVC	[L]	3.53	3.44	97	--	--
FEV1	[L]	3.02	3.33	110	--	--
FEV.5	[L]	--	2.68	--	--	--
FEV3	[L]	3.43	--	--	--	--
FEV6	[L]	--	--	--	--	--
PEFR	[L/s]	9.16	8.19	89	--	--
FEF25-75	[L/s]	4.49	5.33	119	--	--
FEF75-85	[L/s]	--	2.48	--	--	--
FEF.2-1.2	[L/s]	7.67	7.47	97	--	--
FEF25%	[L/s]	8.07	9.03	112	--	--
FEF50%	[L/s]	5.96	5.72	96	--	--
FEF75%	[L/s]	3.23	3.14	97	--	--
FEV.5/FVC	[%]	--	77.81	--	--	--
FEV1/FVC	[%]	85.59	96.81	113	--	--
FEV3/FVC	[%]	97.00	--	--	--	--
FEV6/FVC	[%]	--	--	--	--	--
FEV1/FEV6	[%]	--	--	--	--	--
FET	[S]	--	1.54	--	--	--
ExpTime	[S]	--	0.11	--	--	--
LungAge	[Y]	27.00	24.00	89	--	--
FIVC	[L]	--	2.46	--	--	--
PIFR	[L/s]	--	2.41	--	--	--
FIF25%	[L/s]	--	9.28	--	--	--
FIF50%	[L/s]	--	8.00	--	--	--
FIF75%	[L/s]	--	6.01	--	--	--
FIV.5	[L]	--	0.70	--	--	--
FIV1	[L]	--	1.77	--	--	--
FIV3	[L]	--	--	--	--	--
FIV.5/FIVC	[%]	--	28.49	--	--	--
FIV1/FIVC	[%]	--	71.86	--	--	--
FIV3/FIVC	[%]	--	--	--	--	--

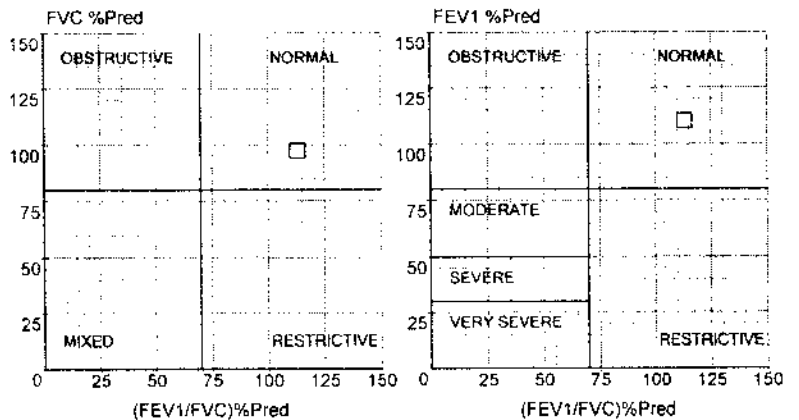
- Pre Medication Report :
 Spirometry within Normal range as FVC% >= 80 And
 FEV1/FVC% > 70

- Pre COPD Severity Report:
 Pre Test within Normal range

DR. DEEPTANGSHU GANGULY

M.B.B.S. M.D.

Reg. No. 66735 (WBMCO)





HOSPITAL

MULTI-SPECIALITY HOSPITAL

7091118888

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- Pathology • OPD • Pharmacy • Uroflowmetry

Patients Name : <u>Laxmi Kant & Malika</u>	Date of receipt : <u>25/07/22</u>
Age : <u>27 years</u>	Date of report : <u>25/07/22</u>
Sex : <u>Male / Female</u>	
Ref. by Dr : <u>Self</u>	

994

HAEMATOLOGY

Test description	Result	Reference range	Unit
Haemoglobin	<u>14.6</u>	Male: - 13.8 - 17.2 Female: - 12.0 - 15.0	gm/dl
TLC	<u>9700</u>	4,000 - 11,000	cells/cu.mm
DLC			
i) Neutrophil	<u>48</u>	40-80	%
ii) Lymphocyte	<u>44</u>	20-40	%
iii) Monocyte	<u>02</u>	2-10	%
iv) Eosinophil	<u>06</u>	1-6	%
v) Basophil	<u>00</u>	< 1	%
ESR	<u>20</u>	0 - 20	mm/h

Blood Group "O"

Rh Typing Positive

DR. Satabdi Mitra M.D. (PATH)

Consultant Pathologist

GURU GOPIRAAM HOSPITAL

(A Unit of Guru Gopiraam Institute of Health Annexe Trust)

Name: - Lakshminarayan Malakar

Date: - 25-7-22

Age: - 27y

Sex: - M

Interpretation of ECG:-

- Rate:- 103/min
- Rhythm:- Regular
- Axis:- NAD
- PR interval:- 156ms
- QRS complex:- 91
- QT interval:- 320ms
- ST segment:- 78ms
- T waves:- insignificant

Impression:- Lead abnormalities.

DR. DEEPTANGSI GANGULY
M.B.B.S. M.D.
Reg. No. 66726 (WBMC)

Patient Name:	MR LAXMIKANTO MALOKAR	Age / Gender:	27 YR/ M
RefdBy:		Date:	25/08/2022

X-RAY OF CHEST(PA VIEW)

FINDINGS:-

Both the lung fields are appear clear.

Both the costo-phrenic and cardio-phrenic angles are normal.

Trachea and the mediastenum are in the midline.

Cardiac size is within normal limits.

There is no evidence of pleural effusion or pneumothorax.

Bony thoracic cage appears normal.

IMPRESSION:-

No abnormality is detected on this study.

Dr K. Nerella
MD Radiologist
Consultant Radiologist
Reg Num-95228

Disclaimer: It is an online interpretation of medical imaging based on clinical data. modern machines/procedures have their own limitation. If there is any clinical discrepancy, this investigation may be repeated or reassessed by other tests. Patients identification in online reporting is not established, so in no way can this report be utilized for any medico legal purpose. Any error in typing should be corrected immediately.



GURU GOPIRAM HOSPITAL

(A Unit of Guru Gopiram Institute of Health Annexe Trust)

Ref. No. 100

Date : 25.07.22

Aarbind Mishra Age - 29 Y / M.

WT → 86 kg

SPO₂ → 97% (RA)

PQ → 103/M

BP → 130/80 mmHg

CXR - PA view

Normal

Ans. to eye, U, G

DR. DEEPTANGSHU GUPTA
M.B.B.S., (D)
Reg. No. 66735 (WBMC)

Regular checkup.

VA { 6/6, N6
6/6, N6.

CV { normal
normal.

Dr. Kriti Srivastava
B.OPTM
Reg. No. - 12101210012



Shivakshi Rehabilitation Centre for Speech & Hearing

99

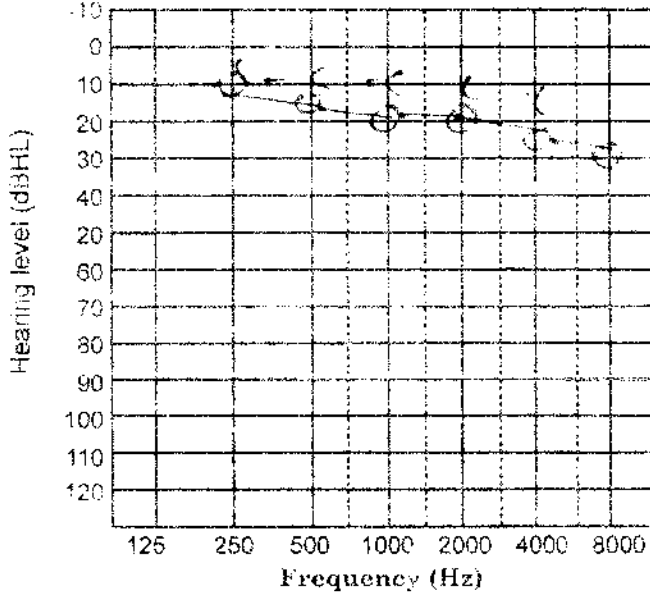
28/08/22

PURE TONE AUDIOMETRY

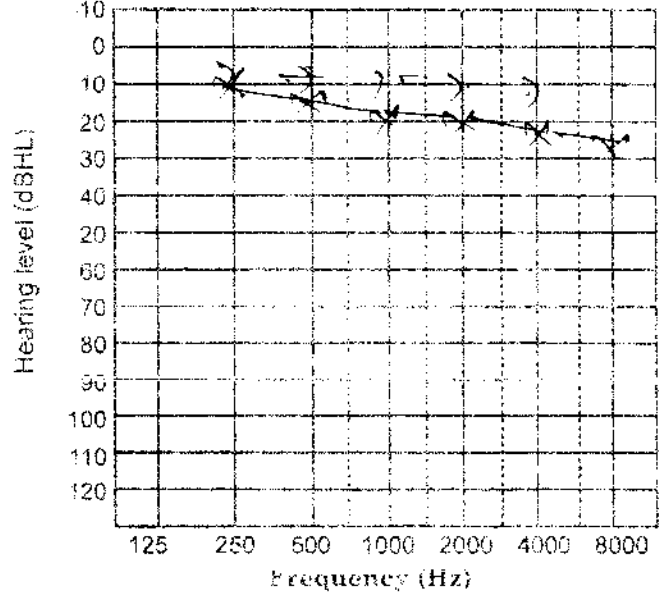
NAME: **ARBIND MISHRA**

AGE/SEX: **29m**

**RIGHT EAR
AUDIOGRAM**



**LEFT EAR
AUDIOGRAM**



Right Ear	PTA	Left Ear
18-3 : dBHL		18-3 : dBHL
	II	

(R) Ear	SYMBOLS	(L) Ear
	AC Unmasked	X
	BC Unmasked	>
	AC masked	□
	BC masked	∩
	No Response	↘

Audiometric responses : Fairly Consistent

(+)	RINNE TEST	(+)
←	WEBER TEST	→
←	250 Hz	→
←	500 Hz	→
←	1kHz	→
←	2kHz	→
←	4kHz	→

PK

Provisional Diagnosis: **B/C Hearing Sensitivity within normal limits**
 Counseling
 Follow-up



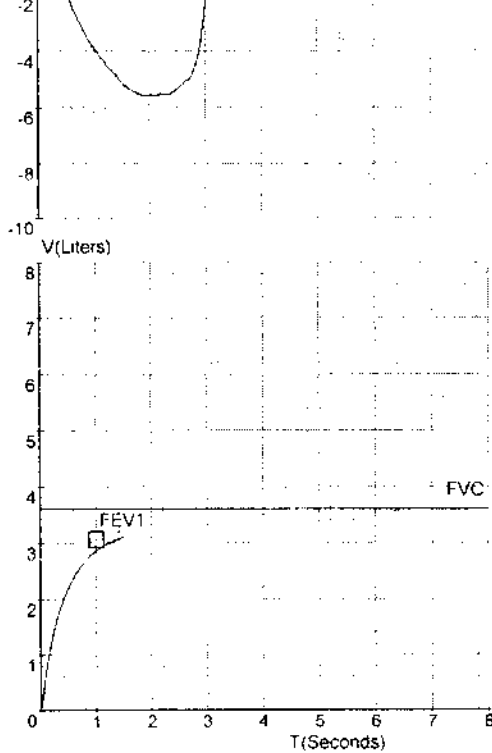
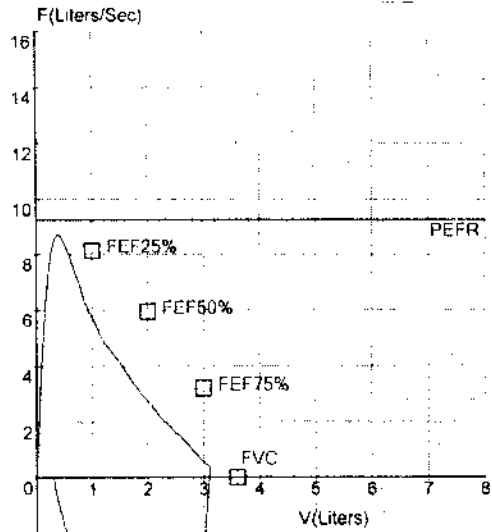
SIPL 100 - ARBIND MISHRA
 29 Years / Male / Ht 170 Cms / 86 Kgs / Non-Smoker

FVC TEST

Date: 25-07-2022 (T1)

Pred Eqn : CLARITY Eth.Corr : 100 Temp : 0°C

Ref By : NONE



Parameter	Pred	Pre	Pre%	Post	Post%	Imp%
FVC	[L] 3.60	3.11	86	--	--	--
FEV1	[L] 3.06	2.87	94	--	--	--
FEV.5	[L] --	2.23	--	--	--	--
FEV3	[L] 3.50	--	--	--	--	--
FEV6	[L] --	--	--	--	--	--
PEFR	[L/s] 9.24	8.74	95	--	--	--
FEF25-75	[L/s] 4.44	4.06	92	--	--	--
FEF75-85	[L/s] --	1.69	--	--	--	--
FEF.2-1.2	[L/s] 7.64	6.73	88	--	--	--
FEF25%	[L/s] 8.10	7.49	93	--	--	--
FEF50%	[L/s] 5.95	4.33	73	--	--	--
FEF75%	[L/s] 3.17	2.03	64	--	--	--
FEV.5/FVC	[%] --	71.89	--	--	--	--
FEV1/FVC	[%] 84.93	92.49	109	--	--	--
FEV3/FVC	[%] 97.00	--	--	--	--	--
FEV6/FVC	[%] --	--	--	--	--	--
FEV1/FEV6	[%] --	--	--	--	--	--
FET	[S] --	1.43	--	--	--	--
ExpiTime	[S] --	0.05	--	--	--	--
LungAge	[Y] 29.00	31.00	107	--	--	--
FIVC	[L] --	2.79	--	--	--	--
PIFR	[L/s] --	5.60	--	--	--	--
FIF25%	[L/s] --	8.46	--	--	--	--
FIF50%	[L/s] --	5.22	--	--	--	--
FIF75%	[L/s] --	3.13	--	--	--	--
FIV.5	[L] --	2.07	--	--	--	--
FIV1	[L] --	2.79	--	--	--	--
FIV3	[L] --	--	--	--	--	--
FIV.5/FIVC	[%] --	74.21	--	--	--	--
FIV1/FIVC	[%] --	100.00	--	--	--	--
FIV3/FIVC	[%] --	--	--	--	--	--

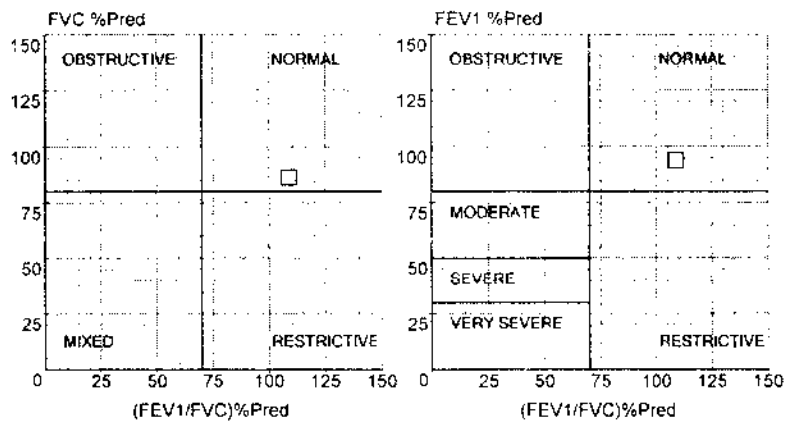
- Pre Medication Report :
 Spirometry within Normal range as FVC% >= 80 And FEV1/FVC% > 70

- Pre COPD Severity Report:
 Pre Test within Normal range

DR. DEEPTANGSHU GANGULY

M.B.B.S., M.D.

- Doctor's Comments :
 Reg. No. 55735 (WUPK)



NONE
 NA



HOSPITAL

MULTISPECIALITY HOSPITAL

709118888

- C.T.Scan • Digital X-Ray • Ultrasound • Echo Cardiography • E.C.G. • E.M.G. • EEG • NCV • OPG • Mammegraphy • BERA • Endoscopy
- Pathology • OPD • Pharmacy • Urofolowmetry

Patients Name : <u>Arvind Mishra</u>	Date of receipt : <u>25/07/22</u>
Age : <u>29</u> years	Date of report : <u>25/07/22</u>
Sex : <u>Male / Female</u>	
Ref. by Dr : <u>Self</u>	

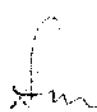
(100)

HAEMATOLOGY

Test description	Result	Reference range	Unit
Haemoglobin	<u>14.6</u>	Male: - 13.8 -17.2 Female:-12.0 – 15.0	gm/dl
TLC	<u>8500</u>	4,000 – 11,000	cells/cu.mm
DLC			
i) Neutrophil	<u>69</u>	40-80	%
ii) Lymphocyte	<u>24</u>	20-40	%
iii) Monocyte	<u>02</u>	2 - 10	%
iv) Eosinophil	<u>05</u>	1 - 6	%
v) Basophil	<u>00</u>	< 1	%
ESR	<u>12</u>	0 – 20	mm/h

Blood Group "B"

Rh Typing Positive


DR. Satabdi Mitra M.D. (PATH)

Consultant Pathologist

Patient Name:	MR ARBIND MISHRA	Age / Gender:	29 YR/ M
RefdBy:		Date:	25/08/2022

X-RAY OF CHEST(PA VIEW)

FINDINGS:-

Both the lung fields are appear clear.

Both the costo-phrenic and cardio-phrenic angles are normal.

Trachea and the mediastenum are in the midline.


Cardiac size is within normal limits.

There is no evidence of pleural effusion or pneumothorax.

Bony thoracic cage appears normal.

IMPRESSION:-

No abnormality is detected on this study.


Dr K. Nerella
MD Radiologist
Consultant Radiologist
Reg Num-95228

Disclaimer: It is an online interpretation of medical imaging based on clinical data. modern machines/procedures have their own limitation. If there is any clinical discrepancy, this investigation may be repeated or reassessed by other tests. Patients identification in online reporting is not established, so in no way can this report be utilized for any medico legal purpose. Any error in typing should be corrected immediately.

Annexure-14

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

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

Dated: 21st December, 2016

To

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

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

Sir,

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

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

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

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

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

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

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

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

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

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

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

8.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I)

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

A. SPECIFIC CONDITION:

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

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

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

- xx. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xxi. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.
- xxii. The proponent shall prepare a detailed CSR Plan for every year for the next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.
- xxiii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
- xxiv. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.
- xxv. The project proponent shall provide for LED lights in their offices and residential areas.
- xxvi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board and the State Government.

- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM₁₀, PM_{2.5}, SO₂ and NO_x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubneswar and the SPCB/CPCB once in six months.
- iv. Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.
- v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- ix. Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubneswar. The funds so provided shall not be diverted for any other purpose.
- x. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xi. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEFCC at Bhubneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, SO₂, NO_x (ambient

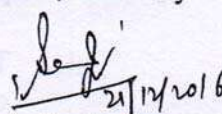
levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

- xii. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubneswar / CPCB / SPCB shall monitor the stipulated conditions.
- xiii. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Bhubneswar by e-mail.
- xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEFCC) at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubneswar.
- xv. Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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

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

11.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.


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

Copy to:-

1. The Secretary, Department of Environment, Government of West Bengal.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.

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

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

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: 29th April, 2020

To

Shri Deepak Kumar Aggarwal,
Director,
M/s. Shakambari Ispat and Power Limited,
Village Pavatpur, Radhamadhampur,
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, Radhamadhampur, 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 30th November, 2018 seeking amendment in the environmental clearance accorded by the MoEF&CC, New Delhi on 21st 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, Radhamadhampur, Madandih, PO–Bortoria, District Purulia, West Bengal.

The proposal cited above was considered during the 3rd meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 9-11th 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-IAII(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				
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				

Sl. No.	Facilities	Capacities as per EC letter No. J-11011/201/2013-IAII(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-36,608T PA 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 Washer y	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-IAII(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 ²	1,98,000 TPA	-	1x20 m ²	1x20 m ²	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 ³	2,49,900 TPA	-	1x350 m ³	1x350 m ³	2,49,900 TPA	
11	Oxygen Plant	225 m ³	-	-	225 m ³	225 m ³	-	
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 17th 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

Annexure-15



Annexure-16



R K Mishra <rk.mishra@shakambharigroup.in>

Submission of Environment Statement (Form-V) for FY: 2021-22 of M/S Shakambhari Ispat & Power Limited

1 message

R K Mishra <rk.mishra@shakambharigroup.in>

Fri, Oct 21, 2022 at 9:14 PM

To: ee11.wbpcb-wb@bangla.gov.in

Cc: Dr Soma Das <iro.kolkata-mefcc@gov.in>, Sanjeev Kumar Sachan <sanjeev.sachan@shakambharigroup.in>

Dear Sir,

With reference to the subject we are submitting attached herewith the Environment Statement (Form-V) for the financial year ending 31st March, 2022 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

DGM-EHS



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