



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

**SIPL Env. Statement_2021-22.pdf**

1598K

Ref.: SIPL/ES/2021-22

Date: 20th, October 2022

The Environmental Engineer

West Bengal Pollution Control Board
Asansol Regional Office
Dr B C Roy Road, KSTP
PO- Ramkrishna Mission Asansol-713305
Dist-Paschim Burdwan (WB)

Sub: Environment Statement (FY: 2021-22) of M/s Shakambhari Ispat & Power Limited, Vill-Madandih, PO-Bartoria, Dist-Purulia (WB)-713221

Dear Sir,

With reference to above subject we are submitting the Environment Statement (Form-V) for financial year ending the 31st March, 2022 of M/s Shakambhari Ispat & Power Limited, Vill-Madandih, PO-Bartoria, Dist-Purulia (WB), for your kind consideration please.

Kindly acknowledge our submission

Thanking you,

Yours faithfully,

for **Shakambhari Ispat & Power Limited**

(Authorized Signatory)
20/10/22



Encl: As above.

Copy to:

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

FORM - V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year 2021-2022 ending with 31st March

PART-A

i. Name and address of the owner/ occupier of the industry operation or process

Mr. Deepak Kumar Agarwal
M/s Shakambhari Ispat & Power Limited
Village - Madandih, PO. - Bortoria,
PS - Neturia, Dist - Purulia (WB),
PIN - 723121

ii. Industry category Primary - **Large** Secondary - **Red**

iii. Production category - **Iron & Steel**

iv. Year of establishment - (Our Group has acquired this establishment in October, 2010)

v. Date of the last environmental statement submitted - 29th Oct 2021

PART - B

Water and Raw Material Consumption:

i. Water consumption in m³/day

Process : 649 m³/day
Cooling : 2591 m³/day
Domestic : 30 m³/day

Name of Products	Process water consumption (m ³) per unit (MT) of products	
	During the previous financial year) (2020-21)	During the current financial year (2021-22)
Sponge Iron	0.60	0.60
MS Billet	0.57	0.57
TMT & Wire Rod	0.37	0.45
Ferro Alloys	1.14	1.14
Electricity	0.63 m ³ /MW	0.82 m ³ /MW



ii. Raw material consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of output (Kg/T)	
		During the previous financial year (2020-21)	During the current financial year (2021-22)
DRI DIVISION			
Iron Ore	Sponge Iron	910	503
Iron Ore Pellet		721	1181
Coal		1114	1051
Dolomite		73	46
SMS DIVISION			
Pig Iron	MS Billet	176	123
Sponge Iron		853	893
Scrap		187	220
ROLLING MILL			
MS Billet	TMT & Wire Rod	1233	1094
FERRO ALLOY DIVISION			
Manganese Ore	Ferro Alloys (FeMn & SiMn)	2998	2352
Coal		924	270
Coke		120	375
Dolomite		185	52
Quartz		109	165
Manganese Slag		334	477
CAPTIVE POWER PLANT DIVISION			
Coal Fines	Electricity	172 Kg/MW	122 Kg/MW
Dolochar		430 Kg/MW	384 Kg/MW

PART-C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (Kg/day)	Concentration of Pollutants discharged (mg/Nm ³)	Percentage of variation from Prescribed standards with reasons
a) Water	0	0	No Industrial Waste water discharge outside the factory premises
b) Air			Below prescribed standards (Monitoring Reports attached)
PM-DRI 100 TPD (1 & 2)	84.56	45.14	
PM-DRI 100 TPD (3 & 4)	99.04	46.47	
PM-DRI 350 TPD (1 & 2)	148.03	42.46	
PM-DRI 600 TPD	89.78	43.00	
PM-SMS	13.17	24.33	
PM-SAF-1	30.26	21.31	
PM-SAF-2	37.54	26.43	
PM-SAF-3	36.50	25.70	
PM-SAF-4	39.96	28.14	
PM-CPP (CFBC Boiler 100 TPH)	43.21	14.50	
SO _x -CPP	69.91	23.46	
NO _x -CPP	156.48	52.51	



PART - D

(As specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous Wastes	Total Quantity (MT)		Copy of Annual Return (Form-4) attached
	During the current financial year (2020-21)	During the current financial year (2021-22)	
From Process	1.025	1.525	
Used Oil from Operation/Maintenance			
Cotton waste from cleaning mopping	0.450	0.530	
From Pollution Control Facilities	NIL	NIL	

PART - E

Solid Wastes	Total Quantity (MT)	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
a) From Process	2,92,740	2,54,271
b) Form pollution control facility	1,71,472	1,43,487
c)		
(i) Quantity recycled or re-utilized within the unit	2,04,989	1,63,461
(ii) Sold	1,55,983	-
(iii) Disposed	1,03,239	2,34,297

PART - F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Solid waste Type	Quantity (TPA)	Disposal System
Dolochar	1,24,723	Used in CPP as fuel
Bag Filter Dust from DRI Coal Circuit	269	Coal dust used in CPP as a fuel
IF Slag (After Metal Recovery)	56,677	Used in Road making & Land filling
Metal Recovery from IF Slag	6,297	Reused in Induction Furnace
CCM Scrap	2,838	Reused in Induction Furnace
Fly Ash from DRI & CPP	1,41,527	Sold to Brick Manufacturers
Bottom Ash/Bed material	30,835	Used for Land filling & Road Making
Ferro Bag Filter Dust	1,691	Reuse in process
Fe Mn Slag	19,212	Used for Si-Mn production
Si-Mn Slag	13,688	It is being used for land filling & road construction

PART - G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

List of **Environmental Management Programme (EMPs)** are given below-

Description	Expenditure for Pollution Control measures on Conservation of Natural Resources (Rs. in lakhs)
Total Cost towards Air Pollution Control Measures, Environmental Monitoring, EHS Management & training, Waste Management System, Green Belt Development (Plantation & Plant Maintenance), etc.	180.00



PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution.

Already included in Part G.

PART - I

MISCELLANEOUS

Any other particulars in respect of environmental protection and abatement of pollution.

- (1) We are complying with the directions given by the WBPCB, and getting regular Air & Water consents.
- (2) Periodic Environmental Monitoring being done by NABL accredited laboratory to ascertain the efficiency of pollution control systems installed.

Enclosure List:

- 1) Copies of analysis report.
- 2) Copy of Hazardous Waste Return (Form-4)





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



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	: 23.03.2022
		Period of Analysis	: 26.03.2022 - 28.03.2022
		Date of Issue	: 30.03.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
		Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/1	Report No.	: ENV/65/March/TR(A)/1/21-22

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
Height of Stack (mtr.) (from G. L.)	: 35.0
Stack I.D. at sampling point (mtr.)	: 2.0
Height of sampling port (mtr.) (from G.L.)	: 15.0
Permanent Platform & Ladder	: Yes

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	142.0
2.	Barometric Pressure	mm of Hg.	--	754.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	9.90
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	78053.19
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	781.24
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	11.0
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	<1.0
8.	a) Concentration of Particulate Matter (at 11% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11	41.38
	b) Concentration of Particulate Matter (at 12% CO ₂)		(Vol. 3 11.07) : 2011	45.14

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



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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	: 23.03.2022		
		Period of Analysis	: 26.03.2022 - 28.03.2022		
		Date of Issue	: 30.03.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/II	Report No.	: ENV/65/March/TR(A)/II/21-22		

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	Height of Stack (mtr.) (from G. L.)	: 35.0
Materials of Construction	: M.S.	Stack I.D. at sampling point (mtr.)	: 2.0
Capacity	: 100 TPD	Height of sampling port (mtr.) (from G.L.)	: 15.0
Emission Due to	: Combustion of Coal & Reduction of Fe-Ore		
Fuel Used	: Coal	Permanent Platform & Ladder	: Yes
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)	: 148.0
2.	Barometric Pressure	mm of Hg.	---	: 754.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.22
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 88802.92
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 679.91
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):	: 41.83
	b) Concentration of Particulate Matter (at 12% CO ₂)		Sec. 11 (Vol. 3 11.07) : 2011	: 46.47

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



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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	: 24.03.2022		
		Period of Analysis	: 26.03.2022 - 28.03.2022		
		Date of Issue	: 30.03.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/VI	Report No.	: ENV/65/March/TR(A)/VI/21-22		

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)	: 180.0
2.	Barometric Pressure	mm of Hg.	--	: 754.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 11.95
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 145259.29
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 707.76
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.2
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11.2% CO ₂)	mg/Nm ³	IS 11255 (Part - 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) :	39.63
	b) Concentration of Particulate Matter (at 12% CO ₂)		Sec. 11 (Vol. 3 11.07) : 2011	

Remarks : During monitoring both kilns were in operation

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	: 24.03.2022
		Period of Analysis	: 26.03.2022 – 28.03.2022
		Date of Issue	: 30.03.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
		Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/IV	Report No.	: ENV/65/March/TR(A)/IV/21-22

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln No. 7(1 x600 TPD)
Shape of Stack	: Circular
	Height of Stack (mtr.) (from G. L.) : 72.0
Materials of Construction	: Concrete
	Stack I.D. at sampling point (mtr.) : 2.17
Capacity	: 600 TPD
	Height of sampling port (mtr.) (from G.L.) : 35.0
Emission Due to	: Combustion of Coal & Reduction of Fe-Ore
Fuel Used	: Coal
	Permanent Platform & Ladder : Yes
Working Fuel Consumption	:
Pollution Control Device	: E.S.P

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 188.0
2.	Barometric Pressure	mm of Hg.	---	: 754.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 10.44
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 86995.84
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 611.79
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 11.0
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
8.	a) Concentration of Particulate Matter (at 11% CO ₂)	mg/Nm ³	IS 11255 (Part – 1) 1985 RA 2003 & ASTM D 3685/D 3685M-98 (reapproved 2005) :	: 39.42
	b) Concentration of Particulate Matter (at 12% CO ₂)		Sec. 11 (Vol. 3 11.07) : 2011	: 43.0

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



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TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 23.03.2022
		Period of Analysis	: 26.03.2022 - 28.03.2022
		Date of Issue	: 30.03.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
		Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/III	Report No.	: ENV/65/March/TR(A)/III/21-22

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Hoods Over Induction Furnace (5 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
Height of Stack (mtr.) (from G. L.)	: 30.0
Stack I.D. at sampling point (mtr.)	: 1.0
Height of sampling port (mtr.) (from G.L.)	: 19.0
Permanent Platform & Ladder	: Yes

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	62.0
2.	Barometric Pressure	mm of Hg.	--	754.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	9.04
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	22554.68
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	24.33

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

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	: 25.03.2022
		Period of Analysis	: 26.03.2022 - 28.03.2022
		Date of Issue	: 30.03.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: ENV/65/March/A/VII	Report No.	: ENV/65/March/TR(A)/VII/21-22

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.1)	Height of Stack (mtr.) (from G. L.)	: 32.0
Shape of Stack	: Circular	Stack I.D. at sampling point (mtr.)	: 1.80
Materials of Construction	: M.S.	Height of sampling port (mtr.) (from G.L.)	: 22.0
Capacity	: 9.0 MVA	Emission Due to	: Reduction of Si-Mn Ore
Fuel Used	: N.A. (Electrically Operated)	Permanent Platform & Ladder	: Yes
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)	: 68.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.45
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 59173.75
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 112.57
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 2.4
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	: 21.31

Remarks :

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. Sumit Chowdhury

Dr. SUMIT CHOWDHURY
Technical Manager



ENVIROCHECK

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 Accredited by NABL (ISO/IEC 17025:2017)
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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	: 25.03.2022
		Period of Analysis	: 26.03.2022 - 28.03.2022
		Date of Issue	: 30.03.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
		Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/VIII	Report No.	: ENV/65/March/TR(A)/VIII/21-22

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.2)	Height of Stack (mtr.) (from G. L.)	: 32.0
Shape of Stack	: Circular	Stack I.D. at sampling point (mtr.)	: 1.80
Materials of Construction	: M.S.	Height of sampling port (mtr.) (from G.L.)	: 22.0
Capacity	: 9.0 MVA		
Emission Due to	: Reduction of Si-Mn Ore		
Fuel Used	: N.A. (Electrically Operated)	Permanent Platform & Ladder	: Yes
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)	: 68.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.45
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 59173.75
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 116.1
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	: 26.43

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



ENVIROCHECK

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 Accredited by NABL (ISO/IEC 17025:2017)
 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	: 25.03.2022
		Period of Analysis	: 26.03.2022 - 28.03.2022
		Date of Issue	: 30.03.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
		Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/IX	Report No.	: ENV/65/March/TR(A)/IX/21-22

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.3)	Height of Stack (mtr.) (from G. L.)	: 32.0
Shape of Stack	: Circular	Stack I.D. at sampling point (mtr.)	: 1.80
Materials of Construction	: M.S.	Height of sampling port (mtr.) (from G.L.)	: 22.0
Capacity	: 9.0 MVA	Permanent Platform & Ladder	: Yes
Emission Due to	: Reduction of Si-Mn Ore	Working Fuel Consumption	: Nil
Fuel Used	: N.A. (Electrically Operated)	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)	: 68.0
2.	Barometric Pressure	mm of Hg.	--	: 755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 7.45
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 59173.75
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 12.94
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 2.4
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	: 25.70

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



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TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Neturia, Dist - Purulia, (WB)- 723121	Sampling Date	: 25.03.2022
		Period of Analysis	: 26.03.2022 - 28.03.2022
		Date of Issue	: 30.03.2022
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
		Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/X	Report No.	: ENV/65/March/TR(A)/X/21-22

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: SEAF (No.4)	Height of Stack (mtr.) (from G. L.)	: 32.0
Shape of Stack	: Circular	Stack I.D. at sampling point (mtr.)	: 1.80
Materials of Construction	: M.S.	Height of sampling port (mtr.) (from G.L.)	: 22.0
Capacity	: 9.0 MVA		
Emission Due to	: Reduction of Si-Mn Ore		
Fuel Used	: N.A. (Electrically Operated)	Permanent Platform & Ladder	: Yes
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)	68.0
2.	Barometric Pressure	mm of Hg.	--	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	7.45
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	59173.75
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	96.35
6.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	2.2
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	28.14

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager



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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	: 24.03.2022		
		Period of Analysis	: 26.03.2022 - 28.03.2022		
		Date of Issue	: 30.03.2022		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Stack Emission
Sample ID No.	: ENV/65/March/A/V	Report No.	: ENV/65/March/TR(A)/V/21-22		

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: CFBC Boiler	Height of Stack (mtr.) (from G. L.)	: 92.0
Shape of Stack	: Circular	Stack I.D. at sampling point (mtr.)	: 2.60
Materials of Construction	: Concrete	Height of sampling port (mtr.) (from G.L.)	: 51.2
Capacity	: 100 TPH	Permanent Platform & Ladder	: Yes
Emission Due to	: Combustion of Coal & Dolochar		
Fuel Used	: Coal & Dolochar		
Working Fuel Consumption	: Coal - 12.5MT/hr.&Dolochar - 8.33 MT/hr.		
Pollution Control Device	: E.S.P		

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	190.0
2.	Barometric Pressure	mm of Hg.	--	754.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	10.45
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	124166.27
5.	Concentration of SO ₂ (at 6% O ₂)	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	23.46
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	52.51
7.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	11.8
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) :	13.72
	b) Concentration of Particulate Matter (at 6% O ₂)		Sec. 11 (Vol. 3 11.07) : 2011	14.50

Remarks :

Reviewed By :

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Approved By :

Dr. SUMIT CHOWDHURY
Technical Manager

FORM 4
[See rules 6(5), 13(8), 16(6) and 20 (2)]
Annual Return
under
Hazardous & Other Wastes(Management & Transboundary Movement) Rules, 2016
Transboundary Movement) Rules, 2016

To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March

Return No : 2273615

Period : 2021-2022

1. Name of facility/Industry Industry Address of facility/Industry	SHAKAMBHARI ISPAT & POWER LTD. Vill-Madandih, PO-Bartoria, PS-Neturia, Dist-Purulia (WB)			
2. UID	WB0016102592			
3. Authorisation No Date of issue: Date of Expiry	47/2S(HW)-3621/2019 24/03/2021 31/10/2024			
4. (i) Name of the authorised person & Designation	R. K. MISHRA DGM			
(ii) Correspondence Address	M/s. SHAKAMBHARI ISPAT & POWER LIMITED Vill-Madandih, PO-Bartoria, PS-Neturia, Dist-Purulia, Pin-723121 (WB)			
(iii) Mobile No	8695621900			
(iv) Land Line No (with area code)	-			
(iv) Fax number (with area code)	-			
(vi) e-mail	rk.mishra@shakambhargroup.in			
(vii) Type of HW Handler	Generator			
(viii) If involved in Interstate Movement of HW	No			
5. Production during the year (product wise), wherever applicable	Sr.no	Product Name	Quantity	Unit
	1	SPONGE IRON	484555.030	Metric Ton
	2	MS Billet	391675.920	Metric Ton
	3	TMT Bar & Wire Rod	283352.289	Metric Ton
	4	Fe-Mn & Si-Mn	40260.274	Metric Ton

Part A. To be filled by hazardous waste generators

Sr. no	Name of Process	Category	Waste Stream	Unit	Quantity in stock at the beginning of the year	Total quantity of waste generated	Quantity dispatched to disposal facility	Quantity dispatched to recycler or co-processors or pre-processor	Quantity dispatched to others	Quantity utilised in house	Quantity in storage at the end of the year

1	Schedule I - 5. Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems or other applications	Used or spent oil	5.1	Metric Ton	0.125 Metric Tonnes/Y ear	1.525 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	1.6 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0.049999999999999982 Metric Tonnes/Y ear
2	Schedule I - 5. Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems or other applications	Wastes or residues containing oil	5.2	Metric Ton	0 Metric Tonnes/Y ear	0.53 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear	0.53 Metric Tonnes/Y ear	0 Metric Tonnes/Y ear

Part B. To be filled by Treatment, storage and disposal facility operators

Sr. no	Name of Process	Category	Waste Stream	Unit	Quantity in stock at the beginning of the year	Total quantity received	Quantity treated	Quantity disposed in landfills as such and after treatment	Quantity incinerated (If applicable)	Quantity processed other than specified above	Quantity in storage at the end of the year
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Part C. To be filled by recyclers or co-processors or other users

Sr. no	Name of Process	Category	Waste Stream	Unit	Quantity in stock at the beginning of the year	Quantity of waste received during the year from Domestic sources	Quantity of waste received during the year Imported	Quantity recycled or co-processed or used	Quantity re-exported (wherever applicable)	Quantity in storage at the end of the year	
Whether Importing Other Wastes						Not-Selected					

Part D. Details of Interstate Movement

Sr.no	Name of Industry (Within State)	District	Receiving/SENDING	Name of Industry (Other State)	State	Type of Waste	Qty.(MTA)	Purpose (Recycling/Disposal/Incineration)
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Part D. Details of Import of Other Waste Import & Recycling

Sr.no	Name of the Importer)	Imported from (country name)	Type of Other waste	Quantity Imported (MTA)	Quantity Recycled (MTA)
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Date : 09/08/2022

Place : Purulia

DEEPAK KUMAR AGARWAL

Name of the Occupier or Operator of the disposal facility