

Ref.: SIPL/ES/2019-20

Date: 28th, October 2020

The Sr. Environmental Engineer

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

Sub: Environment Statement (FY: 2019-20) 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, 2020 of M/s Shakambhari Ispat & Power Limited, Vill-Madandih, PO-Bartoria, Dist-Purulia (WB), for your kind consideration please.

Kindly acknowledge our submission

Thanking you,

Yours faithfully,

for **Shakambhari Ispat & Power Limited**



(Authorized Signatory)

Encl: As above.



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

FORM – V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year 2019-2020 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
Vill. – Madandih, P.O. – Bartoria,
P.S. – Neturia, District – Purulia (WB),
PIN – 723121

ii. Industry category Primary – Large Secondary – Red

iii. Production category – Iron & Steel

iv. Year of establishment – 2002-03 (Our Group has acquired this establishment in Oct- 2010)

v. Date of the last environmental statement submitted – 25.11.2019

PART – B

Water and Raw Material Consumption:

i. Water consumption in m³/day

Process: 64 m³/d
Cooling: 1336 m³/d
Domestic: 05 m³/d

Name of Products	Process water consumption (m ³) per unit of products	
	During the previous financial year (2018-19)	During the current financial year (2019-20)
Sponge Iron	0.05 m ³ /T	0.03 m ³ /T
Billet	0.66 m ³ /T	0.68 m ³ /T
TMT Bar + Wire Rod	0.38 m ³ /T	0.35 m ³ /T
Electricity	0.26 m ³ /MW	0.10 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 (2018-19)	During the current financial year (2019-20)
DRI Division			
Iron Ore	Sponge Iron	1198.51	1044.44
Iron Ore Pellet		624.14	614.23
Coal		914.29	906.45
Dolomite		114.36	61.20
SMS Division			
Pig Iron	MS Billet	311.28	196.26
Sponge Iron		687.27	821.88
Scrap		167.15	213.21
Silico Manganese		15.42	13.12
Rolling Mill Division			
MS Billet	TMT Bar & Wire Rod	1094.79	1086.12
CPP Division			
Coal Fines	Electricity	87.78	63.33
Dolochar		400.67	564.45

* **Industry may use codes** if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART-C

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

(a) Water

Parameters	Unit	Quantity of Pollutants discharged (mass/day)	Concentration (mass/volume)	Percentage of variation from prescribed standards with reasons
Leakages, spillages and overflow water goes to water collection pit through Plant Drain Network and reused for Green Belt Development and dust suppression purpose.				



(b) Ambient Air Quality

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged ($\mu\text{g}/\text{m}^3$)				Percentage of variation from prescribed standards with reasons
		Near Security Gate (Southern Side)	Near Lab Building (SMS section)	Madandih Village	Near CPP Control Room (Western Side)	
PM _{2.5}	Sampling time 24 hours	54.10	46.85	47.90	53.80	Within range
PM ₁₀		89.50	87.12	81.80	86.50	
SO ₂		8.20	8.25	7.80	11.20	
NO _x		30.00	28.50	26.50	36.25	

(c) Stack Monitoring Data

Pollutants	Location	Concentration of Pollutants discharged (mg/Nm^3)	Percentage of variation from prescribed standards with reasons
PM	DRI Kiln 100 (1&2) 100TPD Stack	36.11	Within the range
	DRI Kiln (3) 100TPD Stack	37.63	
	Induction Furnace Stack	32.80	
	CFBC Boiler (100TPH) stack	28.62	
	DRI Kiln (2x350 TPD) Stack	46.47	

PART - D

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

Hazardous Wastes	Total Quantity (MT)	
	During the current financial year (2018-19)	During the current financial year (2019-20)
From Process	NIL	NIL
From Pollution Control Facilities	NIL	NIL

Note: Used oil and waste cotton from cleaning and maintenance activities are collected stored and disposed-off in environment friendly manner to Authorized vendor.

PART - E

Solid Wastes	Total Quantity (MT)	
	During the previous financial year (2018-19)	During the current financial year (2019-20)
From Process	38297	40844
From Pollution Control Facilities	57164	189009
Quantity recycled or reutilized within the unit	44779	115225



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	107656	Used in CPP for power generation
Fly Ash	127000	Sold to Brick Manufactures
Bottom Ash/Bed Material	52500	Used in land filling
BF flue Dust from DRI	8599	Used in After Burning Chamber to enhance power generation through WHRB and partially sold with fly ash after metal recovery.
BF flue dust from SMS	910	Used for land filling
IF Slag	40844	Used for Road Construction and Land filling
MS Scrap & Mill Skull	3030	Reused in SMS

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, EHS, Green Belt Development (Plantation & Plant Maintenance), CER, etc.	65.00

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 all the directions given by the WBPCB, and getting regular Water & Air consents.
- (2) Periodic Environmental Monitoring being done by NABL accredited laboratory to ascertain the efficiency of OCEMS installed and connected to CPCB server.

Enclosure List:

- 1) Copies of analysis report.





ENVIROCHECK

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TEST REPORT

FORMAT NO : ENV/FM/37

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit		
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Dist-Purulia (WB)- 723121	Sampling Date	: 17.02.2020 - 18.02.2020		
		Period of Analysis	: 19.02.2020 - 20.02.2020		
		Date of Issue	: 22.02.2020		
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No	Type of Sample	: Ambient Air
Sample ID No.	: 605A/EC/M/A/VII	Report No.	: 605A/EC/M/TR(A)/VII/19-20		

A] GENERAL INFORMATION

1. Location of Sampling : Near Security Gate
2. Duration of Sampling : 24 hrs. (10:20 a.m. - 10:20 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 25.0
2. Average Relative Humidity (%) : 68.0
3. Barometric Pressure (mm of Hg) : 757.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear sky

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	54.10
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2006	89.50
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	8.20
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	30.0
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	0.23
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 :

Reviewed By :

(Durbadal Chakraborty)
(Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul)
(Quality Manger)

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		Period of Analysis	: 19.02.2020 - 20.02.2020
		Date of Issue	: 22.02.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/X	Report No.	: 605A/EC/M/TR(A)/X/19-20
		Type of Sample	: Ambient Air

A] GENERAL INFORMATION

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

B] METEOROLOGICAL INFORMATION

1. Average Temperature ($^{\circ}\text{C}$) : 24.8
2. Average Relative Humidity (%) : 69.5
3. Barometric Pressure (mm of Hg) : 757.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear sky

C] RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Concentration of PM _{2.5}	$\mu\text{g}/\text{m}^3$	USEPA 1997a, 40 CFR Part 50, Appendix L : 2006	46.85
2.	Concentration of PM ₁₀	$\mu\text{g}/\text{m}^3$	IS 5182 (PART 23) : 2006	87.12
3.	Concentration of SO ₂	$\mu\text{g}/\text{m}^3$	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	8.25
4.	Concentration of NO ₂	$\mu\text{g}/\text{m}^3$	IS 5182 (Part 6) 2006 & ASTM D 1607-91 reapproved 2005 : Sec. 11 (Vol. 11.07) : 2011	28.50

Remarks :

Reviewed By :

(Durbadal Chakraborty)
(Dy. Quality Manager)

Approved By :

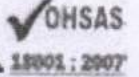
(Dr. Ajoy Paul)
(Quality Manger)

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TEST REPORT

FORMAT NO: ENV/FM/37

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Dist-Purulia (WB)- 723121	Sampling Date	: 17.02.2020 - 18.02.2020
		Period of Analysis	: 19.02.2020 - 20.02.2020
		Date of Issue	: 22.02.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/VIII	Report No.	: 605A/EC/M/TR(A)/VIII/19-20
		Type of Sample	: Ambient Air

A) GENERAL INFORMATION

1. Location of Sampling : Madandih Village (0.5 K.m. from Plant) (Eastern Side)
2. Duration of Sampling : 24 hrs. (10:50 a.m. - 10:50 a.m.)

B) METEOROLOGICAL INFORMATION

1. Average Temperature (^oC) : 23.5
2. Average Relative Humidity (%) : 72.0
3. Barometric Pressure (mm of Hg) : 757.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear sky

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	47.90
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2006	81.80
3.	Concentration of SO ₂	µg/m ³	IS 5182 (Part 2) 2001 & ASTM D 2914-01 reapproved 2007: Sec. 11 (Vol. 11.07) : 2011	7.80
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	26.50

Remarks :

Reviewed By :

(Durbadal Chakraborty)
(Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul)
(Quality Manger)

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OHSAS
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TEST REPORT

FORMAT NO: ENV/FM/37

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		Date of Issue	: 22.02.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/IX	Report No.	: 605A/EC/M/TR(A)/IX/19-20
		Type of Sample	: Ambient Air

A] GENERAL INFORMATION

1. Location of Sampling : Near Power Plant Control Room (Western Side)
2. Duration of Sampling : 24 hrs. (11:15 a.m. - 11:15 a.m.)

B] METEOROLOGICAL INFORMATION

1. Average Temperature (°C) : 25.5
2. Average Relative Humidity (%) : 65.0
3. Barometric Pressure (mm of Hg) : 757.0
4. Smell or Odour : No Remarkable Smell
5. Weather Condition : Clear sky

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	53.80
2.	Concentration of PM ₁₀	µg/m ³	IS 5182 (PART 23) : 2006	86.50
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	11.20
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	36.25

Remarks :

Reviewed By :

(Durbadal Chakraborty)
(Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul)
(Quality Manger)

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		Period of Analysis	: 19.02.2020 - 20.02.2020
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Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/I	Report No.	: 605A/EC/M/TR(A)/I/19-20

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

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

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 122.5
2.	Barometric Pressure	mm of Hg.	--	: 757.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 9.12
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 75623.4
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 820.90
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	: 32.50
	b) Concentration of Particulate Matter (at 12% CO ₂)			: 36.11

Remarks :

Reviewed By :

(Durbadal Chakraborty)
(Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul)
(Quality Manger)

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Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/II	Report No.	: 605A/EC/M/TR(A)/II/19-20

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

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

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 128.0
2.	Barometric Pressure	mm of Hg.	--	: 757.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 9.26
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 75731.13
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 765.10
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 (Vol. 3 11.07) : 2011	: 23.50
	b) Concentration of Particulate Matter (at 12% CO ₂)			: 37.63

Remarks :

Reviewed By :

(Durbadal Chakraborty)
(Dy. Quality Manager)

Approved By :

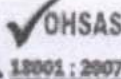
(Dr. Ajoy Paul)
(Quality Manger)

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Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/IV	Report No.	: 605A/EC/M/TR(A)/IV/19-20

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Hood Over Induction Furnace (4 nos.) attached to common stack
Shape of Stack	: Circular
Materials of Construction	: M.S.
Capacity	: 25 MT/Heat (4 nos.)
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)	62.0
2.	Barometric Pressure	mm of Hg.	--	757.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	8.8
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	22055.67
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	32.80

Remarks :

Reviewed By :

(Durbadal Chakraborty)
(Dy. Quality Manager)

Approved By :

(Dr. Ajoy Paul)
(Quality Manger)

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TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Dist-Purulia (WB)- 723121	Sampling Date	: 17.02.2020
		Period of Analysis	: 19.02.2020 - 20.02.2020
		Date of Issue	: 22.02.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/VI	Report No.	: 605A/EC/M/TR(A)/VI/19-20

GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: CFBC Boiler
Shape of Stack	: Circular
Materials of Construction	: Concrete
Capacity	: Rated - 1 x 100 TPH (Working - 80 TPH)
Emission Due to	: Combustion of Coal & Dolochar
Fuel Used	: Coal & Dolochar
Working Fuel Consumption	: Coal - 280 TPD Dolochar - 192 TPD
Pollution Control Device	: E.S.P

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.	RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	: 128.0
2.	Barometric Pressure	mm of Hg.	--	: 757.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 9.05
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 102294.94
5.	Concentration of CO ₂	% (v/v)	IS 13270 1992 RA 2003	: 12.8
6.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	: <1.0
7.	a) Concentration of Particulate Matter (at 12.8% CO 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	: 41.80
	b) Concentration of Particulate Matter (at 12% CO ₂)			: 28.62

Remarks :

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OHSAS 18001:2007

TEST REPORT

FORMAT NO: ENV/FM/38

Name of the Industry	: Shakambhari Ispat & Power Ltd.	Type of Industry	: Steel & Power Unit
Address	: Vill. - Madandih, P.O. - Bartoria, P.S. - Nuturia, Dist-Purulia (WB)- 723121	Sampling Date	: 17.02.2020
		Period of Analysis	: 19.02.2020 - 20.02.2020
		Date of Issue	: 22.02.2020
Sampling Plan & Procedure	: ENV/SOP/01	Deviation from the Sampling Method and Plan	: No
Sample ID No.	: 605A/EC/M/A/V	Report No.	: 605A/EC/M/TR(A)/V/19-20

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	: Rotary Kiln No. 1 & 2 (attached to common Stack)	Height of Stack (mtr.) (from G. L.)	: 72.0
Shape of Stack	: Circular	Stack I.D. at sampling point (mtr.)	: 2.60
Materials of Construction	: M.S.	Height of sampling port (mtr.) (from G.L.)	: 51.2
Capacity	: 350 TPD (each)	Emission Due to	: Oxidation of Coal & Reduction of Fe-Ore
Fuel Used	: Coal	Permanent Platform & Ladder	: Yes
Working Fuel Consumption	: 246 TPD		
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)	: 123.0
2.	Barometric Pressure	mm of Hg.	--	: 757.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	: 8.0
4.	Quantity of Gas flow	Nm ³ /hr.	IS 11255 (Part III)	: 113306.34
5.	Concentration of SO ₂	mg/Nm ³	IS 11255 (Part 2) 1985 RA 2003	: 745.80
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 (Vol. 3 11.07) : 2011	: 37.10
	b) Concentration of Particulate Matter (at 12% CO ₂)			: 46.47

Remarks :

Reviewed By :

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