SHAKAMBHARI GROUP

BRAVO SPONGE IRON PRIVATE LIMITED

CIN: U27106WB1997PTC082921 | GSTIN: 19AACCB5058J1ZH | PAN: AACCB5058J | State: West Bengal | State Code: 19

Ref.: BSIPL/ES/2023-24

Date: 22 September, 2024

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

Sub: Environmental Statement (FY: 2023-24) of M/S Bravo Sponge Iron Pvt. Limited, Village- Mahuda, P.O-Rukni, P.S-Para, Dist.-Purulia, Pin- 723145.

Dear Sir,
With reference to above subject we are submitting herewith the Environmental Statement (Form-V) for financial year ending 31st March, 2024 of M/s Bravo Sponge Iron Pvt. Limited Vill-Mahuda, P.O-Rukni, P.S.-Para, Dist.-Purulia (WB) for your kind consideration please.

Kindly acknowledge our submission.

Thanking you and with regards,

Yours faithfully,

For **Bravo Sponge Iron Pvt. Limited**

(Authorized Signatory)

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

Encl: As above.

Copy to:
Ministry of Environment, Forest & Climate Change (MoEF&CC) GOI, 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 2023-2024 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 Bravo Sponge Iron Pvt. Ltd.
Village- Mahuda, P.O-Rukni, P.S-Para,
Dist: Purulia,
Pin- 723145.

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

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

iv. Year of establishment –2003-04 (Our Group has acquired this establishment in June- 2015)

v. Date of the last environmental statement submitted: 18th October 2023

PART – B

Water and Raw Material Consumption:

i. Water consumption in m^3/day

Process: - *1311 m^3/d*
Cooling: - *751 m^3/d*
Domestic: - *30 m^3/d*

Name of Products	Process water consumption (m^3) per unit of products	
	During the previous financial year (2022-23)	During the current financial year (2023-24)
SPONGE IRON	0.36 m^3/T	0.48 m^3/T
MS Billet	0.46 m^3/T	0.58 m^3/T
Pellet and Producer Gas	0.23 m^3/T	0.22 m^3/T
Electricity	0.58 m^3/MW	0.81 m^3/MW

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

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 **(2022-23)**	During the current financial year **(2023-24)**
DRI DIVISION			
Iron Ore	Sponge Iron	352	234
Iron ore Pellet		1173	1,233
Coal		1045	1,075
Dolomite		49	41
SMS Division			
Pig Iron	MS Billet	60	90
Sponge Iron		978	987
Scrap		266	226
Ferro alloys		6	14
PELLET DIVISION			
Iron ore fines	Pellet	1181	1,151
Bentonite		7	7
Lime stone		12	4
Coal		11	12
PGP Gas		-	56,295
High Carbone fines		-	9.130
Producer Gas Plant			
Coal		-	0.424 Kg/Nm3
CPP DIVISION			
Coal	Electricity	20 Kg/MW	58 Kg/MW
Dolochar		938 Kg/MW	483 Kg/MW

* ***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

Pollutants	Quantity of Pollutants discharged (Kg/day)	Concentration of pollutants discharged (mg/Nm3)	Percentage of variation form prescribed standards with reasons
a) Water	0	0	No Industrial waste water being discharged outside the factory premises.
B) Air			
PM- DRI Kiln 1&2 (100TPD & 95 TPD)	63.34	37.04	Monitoring report form NABL accredited laboratory attached
PM- DRI Kiln 3 & 4 (2x100 TPD)	50.91	28.59	
PM-DRI Kiln-5 (1x350 TPD)	64.26	30.80	
PM SMS	6.98	34.51	
PM PELLET Plant Unit-1	141.48	26.50	
PM PELLET Plant Unit-2	123.99	23.50	
PM CPP (AFBC)	46.91	16.99	
SO2 -CPP	238.81	86.50	
NOx -CPP	133.07	48.20	

Monitoring reports attached

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

PART – D

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

Hazardous Wastes	Total Quantity (MT)	
	During the current financial year (2022-23)	During the current financial year (2023-24)
Used oil from operation/ Maintenance	1.108	1.423
Cotton waste from cleaning	0.260	0.270
Coal Tar/Tarry residue from PGP plant	40.88	142.14

PART – E

Solid Wastes	Total Quantity (MT)	
	During the previous financial year (2022-23)	During the current financial year (2023-24)
From Process	57838	70871
From Pollution Control Facilities	61993	72280
Quantity recycled or reutilized within the unit	48681	56844
Sold	52111	59610
Disposed	19040	26697

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	43028	Used in CPP power plant
Fly Ash	59610	Sold to Brick manufacturing
Bottom Ash/Bed material	13777	land filling & road making
BF flue dust from DRI	6682	Used in Pellet pant and CPP pant
IF Slag	12660	Used in road construction and land filling
Metal from SMS Slag	1407	Reused in SMS
BF flue dust (SMS)	260	Used for land filling
Pellet plant Dust	5728	Reused in Pellet plant

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA

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), CER, etc.	72.00

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) Copy of analysis report – Annexure -1.
2) Copy of form -4 Annual return of Hazardous waste as Annexure -2.

Bravo Sponge Iron Pvt. Ltd. RUKNI PURULIA 22/07/2024

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

TC-6014

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.		Type of Industry	:	Steel & Power Unit	
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145		Sampling Date	:	20.02.2024	
				Period of Analysis	:	02.03.2024 – 02.03.2024	
				Date of Issue	:	04.03.2024	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Stack Emission
Sample Condition	:	Sealed	Sample ID No. : ENV/03/March/A/I	Report No.	:	ENV/03/March/TR(A)/1/23-24	

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	AFBC Boiler			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	45.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	2.20
Capacity	:	20 TPH	Height of sampling port (mtr.) (from G.L.)	:	16.0
Emission Due to	:	Combustion of Coal & Dolochar			
Fuel Used	:	Coal & Dolochar	Permanent Platform & Ladder	:	Yes
Working Fuel Consumption	:	Coal – 110 TPD & Dolochar – 130 TPD			
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)	:	138.0
2.	Barometric Pressure	mm of Hg.	--	:	755.0
3.	Velocity of Gas flow	m/s	IS : 11255 (Part 3)	:	11.93
4.	Quantity of Gas flow	$Nm^3/hr.$	IS : 11255 (Part III)	:	115035.40
5.	Concentration of SO_2 (at 6% O_2)	mg/Nm^3	IS 11255 (Part 2) : 2019	:	86.50
6.	Concentration of NO_x (at 6% O_2)	mg/Nm^3	IS 11255 (Part 7) : 2017 / ASTM D 1608-98, Sec. 11 (Vol. 11.07) : 2017	:	48.20
7.	Concentration of CO_2	% (v/v)	IS 13270 : 2019	:	7.4
8.	Concentration of O_2	% (v/v)	EPA Method 3 : 2017	:	10.6
9.	Concentration of CO	%(v/v)	IS 13270 : 2019	:	<1.0
	a) Concentration of Particulate Matter	mg/Nm^3	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	16.99
	b) Concentration of Particulate Matter (at 6% CO_2)	mg/Nm^3		:	24.50

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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

FC-6014

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.			Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145			Sampling Date	:	20.02.2024
					Period of Analysis	:	02.03.2024 – 02.03.2024
					Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/II	Report No.	: ENV/03/March/TR(A)/II/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 1 & 2) attached with common stack			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	30.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	1.9
Capacity	:	No.1-100 TPD & No.2-95TPD	Height of sampling port (mtr.) (from G.L.)	:	14.0
Emission Due to	:	Oxidation of Coal & Reduction of Fe-Ore			
Fuel Used	:	Coal	Permanent Platform & Ladder	:	Yes
Working Fuel Consumption	:	5.12 MT/hr. (each 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)	:	162.0
2.	Barometric Pressure	mm of Hg.	--	:	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	10.55
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	71256.67
5.	Concentration of SO_2	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	112.0
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) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	37.04
	b) Concentration of Particulate Matter (at 12% CO_2)	mg/Nm^3		:	40.40

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharyya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.		Type of Industry	:	Steel & Power Unit	
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145		Sampling Date	:	20.02.2024	
				Period of Analysis	:	02.03.2024 – 02.03.2024	
				Date of Issue	:	04.03.2024	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/III	Report No.	: ENV/03/March/TR(A)/III/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln (No. 3 & 4) attached with common stack			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	30.0
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	1.80
Capacity	:	100 TPD (each kiln)	Height of sampling port (mtr.) (from G.L.)	:	15.0
Emission Due to	:	Oxidation of Coal & Reduction of Fe-Ore			
Fuel Used	:	Coal	Permanent Platform & Ladder	:	Yes
Working Fuel Consumption	:	5.12 MT/hr. (each 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	^0C	IS 11255 (Part 1)	:	158.0
2.	Barometric Pressure	mm of Hg.	--	:	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	12.11
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	74199.58
5.	Concentration of SO_2	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	130.50
6.	Concentration of CO_2	% (v/v)	IS 13270 1992 RA 2003	:	11.8
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	a) Concentration of Particulate Matter (at 11.8% CO_2)	mg/Nm^3	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	28.59
	b) Concentration of Particulate Matter (at 12% CO_2)	mg/Nm^3		:	29.07

Remarks :

Reviewed By :

Indrani Bhattacharyya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.			Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145			Sampling Date	:	20.02.2024
					Period of Analysis	:	02.03.2024 – 02.03.2024
					Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/IV	Report No.	: ENV/03/March/TR(A)/IV/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Rotary Kiln – 350 TPD			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	45.0
Materials of Construction	:	RCC	Stack I.D. at sampling point (mtr.)	:	2.0
Capacity	:	350 TPD	Height of sampling port (mtr.) (from G.L.)	:	--
Emission Due to	:	Combustion of Coal & Reduction of Fe-Ore			
Fuel Used	:	Coal	Permanent Platform & Ladder	:	Yes
Working Fuel Consumption	:	101 MT/MT of DRI			
Pollution Control Device	:	E.S.P			

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	°C	IS 11255 (Part 1)	:	204.0
2.	Barometric Pressure	mm of Hg.	--	:	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	12.74
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	86925.19
5.	Concentration of SO_2	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	121.84
6.	Concentration of CO_2	% (v/v)	IS 13270 1992 RA 2003	:	12.2
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	a) Concentration of Particulate Matter (at 12.2% CO_2)	mg/Nm^3	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	31.32
	b) Concentration of Particulate Matter (at 12% CO_2)	mg/Nm^3		:	30.80

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.			Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145			Sampling Date	:	20.02.2024
					Period of Analysis	:	02.03.2024 – 02.03.2024
					Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample :	Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/VI	Report No. :	ENV/03/March/TR(A)/VI/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Hood Over 2 nos. Induction Furnace (attached with common stack)			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	30.6
Materials of Construction	:	M.S.	Stack I.D. at sampling point (mtr.)	:	0.6
Capacity	:	15 MT/Charging (each furnace)	Height of sampling port (mtr.) (from G.L.)	:	--
Emission Due to	:	Melting of Sponge Iron, Pig Iron Scraps etc.			
Fuel Used	:	Electricity Operated	Permanent Platform & Ladder	:	Yes
Working Fuel Consumption	:	Nil			
Pollution Control Device	:	Bag Filter			

B. RESULTS

SL. NO.	PARAMETERS	UNIT	METHOD NO.		RESULTS
1.	Flue Gas Temperature	^0C	IS 11255 (Part 1)	:	64.0
2.	Barometric Pressure	mm of Hg.	--	:	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	9.45
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	8438.91
5.	Concentration of Particulate Matter	mg/Nm^3	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	34.51

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharyya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

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

TC-6014

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.		Type of Industry	:	Steel & Power Unit	
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145		Sampling Date	:	20.02.2024	
				Period of Analysis	:	02.03.2024 – 02.03.2024	
				Date of Issue	:	04.03.2024	
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Stack Emission
Sample Condition	:	Sealed	Sample ID No.	:	ENV/03/March/A/VIII	Report No.	: ENV/03/March/TR(A)/VIII/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Fe-Ore Pellet Formation Stack (No.2)			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	50.0
Materials of Construction	:	RCC	Stack I.D. at sampling point (mtr.)	:	3.0
Capacity	:	2500 MT/Day	Height of sampling port (mtr.) (from G.L.)	:	--
Emission Due to	:	Combustion of Producer Gas & PCI Coal			
Fuel Used	:	Producer Gas & PCI Coal	Permanent Platform & Ladder	:	Yes
Working Fuel Consumption	:	2.78 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)	:	125.0
2.	Barometric Pressure	mm of Hg.	--	:	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	11.63
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	219847.43
5.	Concentration of SO_2	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	15.30
6.	Concentration of CO_2	% (v/v)	IS 13270 1992 RA 2003	:	10.0
7.	Concentration of CO	%(v/v)	IS 13270 1992 RA 2003	:	<1.0
8.	Concentration of Particulate Matter	mg/Nm^3	IS 11255 (Part – 1) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	23.50

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality Manager

TEST REPORT

FORMAT NO : ENV/FM/38

Name of the Industry	:	Bravo Sponge Iron Pvt. Ltd.			Type of Industry	:	Steel & Power Unit
Address	:	Vill. – Mohuda. P.O. – Rukni, P.S. – Para, Purulia – 723145			Sampling Date	:	20.02.2024
					Period of Analysis	:	02.03.2024 – 02.03.2024
					Date of Issue	:	04.03.2024
Sampling Plan & Procedure	:	ENV/SOP/01	Deviation from the Sampling Method and Plan	:	No	Type of Sample	: Stack Emission
Sample Condition	:	Sealed	Sample ID No. : ENV/03/March/A/VII		Report No.	:	ENV/03/March/TR(A)/VII/23-24

A. GENERAL INFORMATION ABOUT STACK PROVIDED BY THE INDUSTRY

Stack Attached to	:	Fe-Ore Pellet Formation Stack (No.1)			
Shape of Stack	:	Circular	Height of Stack (mtr.) (from G. L.)	:	50.0
Materials of Construction	:	RCC	Stack I.D. at sampling point (mtr.)	:	3.0
Capacity	:	2500 MT/Day	Height of sampling port (mtr.) (from G.L.)	:	--
Emission Due to	:	Combustion of Producer Gas & PCI Coal			
Fuel Used	:	Producer Gas & PCI Coal	Permanent Platform & Ladder	:	Yes
Working Fuel Consumption	:	2.78 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)	:	115.0
2.	Barometric Pressure	mm of Hg.	--	:	755.0
3.	Velocity of Gas flow	m/s	IS 11255 (Part 3)	:	11.47
4.	Quantity of Gas flow	$Nm^3/hr.$	IS 11255 (Part III)	:	222452.35
5.	Concentration of SO_2	mg/Nm^3	IS 11255 (Part 2) 1985 RA 2003	:	17.06
6.	Concentration of CO_2	% (v/v)	IS 13270 1992 RA 2003	:	9.8
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) : 2019 & ASTM D 3685/D 3685M-98 (reapproved 2005) : Sec. 11 (Vol.11.07) : 2017	:	26.50

Remarks : Result relates only to the sample tested.

Reviewed By :

Indrani Bhattacharyya

INDRANI BHATTACHARYA
Dy. Technical Manager, Chemical

Authorised Signatory :

Dr. AJOY PAUL
Quality 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 : *5137950* **Period :** *2023-2024*

1. Name of facility/Industry **Industry Address of facility/Industry**	*BRAVO SPONGE IRON PVT. LTD.* *Vill-Mahuda, PO-Rukni, PS-Para, Dist-Purulia (WB)*
2. UID	*WB0299683010*
3.Authorisation No **Date of issue:** **Date of Expiry**	*252/2S(HW)-3675/2019* *23/12/2022* *31/07/2024*
4. (i) Name of the authorised person & Designation	*Deepak Kumar Agrawal* *Director*
(ii) Correspondence Address	*Village- Mahuda, P.O-Rukni, P.S-Para, Dist:Purulia,Pin-723145.*
(iii) Mobile No	*9233331111*
(iv) Land Line No (with area code)	*0343-66255252*
(iv) Fax number (with area code)	
(vi) e-mail	*emd.sipl@shakambharigroup.co.in*
(vii) Type of HW Handler	*Generator*
(viii) If involved in Interstate Movement of HW	*Yes*
5. Production during the year (product wise), wherever applicable	

Sr.no	Product Name	Quantity	Unit
1	*SPONGE IRON*	*246302*	*Metric Ton*
2	*M.S. BILLET*	*79157*	*Metric Ton*
3	*PELLET*	*1272850*	*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 - 35.Purification and treatment of exhaust air/gases, water and waste water from the processes in this schedule and common industrial effluent treatment plants (CETPs)*	*Exhaust Air or Gas cleaning residue*	*35.1*	*Metric Ton*	*0.279 Metric Tonnes/Year*	*142.051 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*142.14 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*0.189999999999973 Metric Tonnes/Year*
2	*Schedule I - 13.Production of iron and steel including other ferrous alloys (electric furnaces; steel rolling and finishing mills; Coke oven and by product plant)*	*Used Oil*	*5.1*	*Metric Ton*	*0.016 Metric Tonnes/Year*	*1.407 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*1.423 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*0 Metric Tonnes/Year*
3	*Schedule I - 13.Production of iron and steel including other ferrous alloys (electric furnaces; steel rolling and finishing mills; Coke oven and by product plant)*	*Used Cotton*	*5.2*	*Metric Ton*	*0 Metric Tonnes/Year*	*0.27 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*0 Metric Tonnes/Year*	*0.27 Metric Tonnes/Year*	*0 Metric Tonnes/Year*

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**

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)**

1	*BRAVO SPONGE IRON PVT. LIMITED*	*PURULIA*	*Sending*	*Nilay Narayan Ploychem LLP*	*Jharkhand*	*Used Oil*	*1.423 MTA*	*Recycling*

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)**

Date :*14/06/2024*

Place : *Purulia*

DEEPAK KUMAR AGARWAL

Name of the Occupier or Operator of the disposal facility