

o/c

ORISSA ALLOY STEEL PRIVATE LIMITED

CORPORATE ADDRESS: PREMLATA BUILDING, 39 SHAKESPEARE SARANI, 6TH FLOOR, ROOM NO. 3 & 4, KOLKATA - 700 017
CIN:U27320WB2019PTC234383

Ref. OASPL/ENV_Statement/23-24

Date:- 21.09.2023

To,
The Member Secretary,
West Bengal Pollution Control Board
Parivesh Bhawan,
10A, Block LA, Sector - III, Salt Lake City
Kolkata - 700098



Sub – Environmental Statement for the Financial Year ending the 31st March, 2023 submitted by M/s Orissa Alloy Steel Private Limited (Formally M/s Rashmi Alloy Steel Private Limited).

Dear Sir,

With respect to the above subject matters, we hereby enclosed the Environmental statement for the financial year ending the 31st March, 2023 as per rule – 14, Form - V for your ready reference.

You are requested kindly acknowledge the same.

Thanking you,
For, **M/s Orissa Alloy Steel Private Limited**

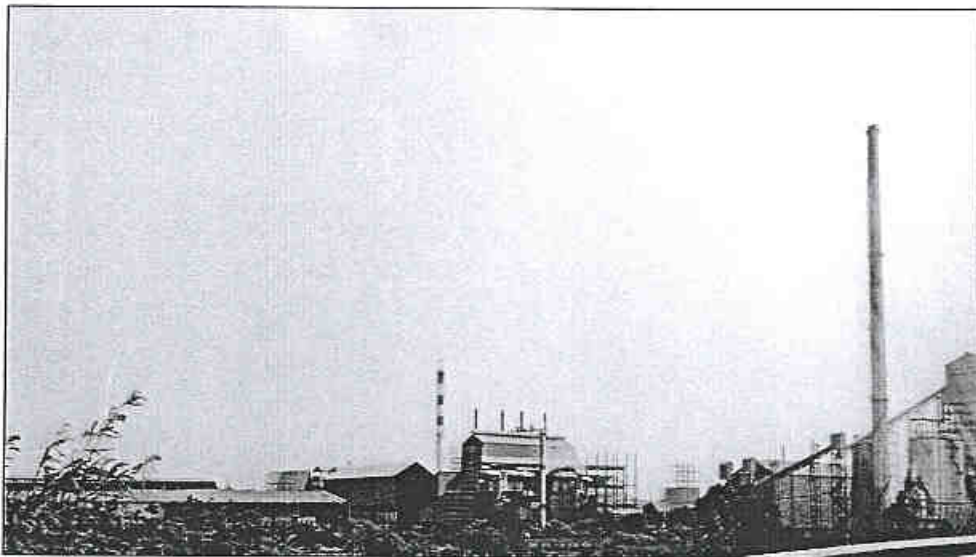
Authorized Signatory

Encl. Stated as above.

**ENVIRONMENTAL STATEMENT FOR
THE FINANCIAL YEAR
2022-2023**

FORM - V

M/S. ORISSA ALLOY STEEL PVT. LTD.



Factory Address:

M/s - Orissa Alloy Steel Pvt. Ltd.

Village - Gokulpur, P.O. - Shyamraipur,

P.S. - Kharagpur (L) Dist. - Paschim Medinipur (W),

Pin - 721301, West Bengal

[FORM-V]



(Rule-14)

Environmental Statement for the financial year ending the 31st March
2023

PART - I

- i) **Name and address of the owner/occupier of the industry operation or process**

Register & Corporate Office address:

M/s Orissa Alloy Steel Private Limited

1, Garstin Place, Orbit House

3rd Floor, Room No- 3B

Kolkata – 700001

West Bengal

M/s Orissa Alloy Steel Private Limited

Village – Gokulpur, P.O. – Shyamraipur, P.S – Kharagpur (Local)

Dist. – Medinipur (West), Pin - 721301

West Bengal

- ii) **Industry Category**

Red Category

- iii) **Production Capacity**

Sl. No.	Production Capacity (TPA) as per Valid CTO	Production (2021-2022)	Actual Production (2022-2023)
1.	Ferro Alloy (FeCr, FeMn, FeSi & SiMn) 58,500 TPA	21,108.47	40,972.00
2.	Ferro Chrome Slag 10,000 TPA	--	--
3.	Silico Manganese Slag 25,000 TPA	--	--
4.	Sponge Iron 9,00,000 TPA	3,43,686.40 TPA	7,76,088.37 TPA
5.	CPP(WHRB based) 110 MW	--	28,48,92,391 KWH
6.	Finished Ductile Iron Pipe 2,00,000 TPA	--	--
7.	Dolochar/Char 2,25,169 TPA	47,323.79	1,45,120.66



8.	DRI Fines	99,677 TPA	--	56,431.45
9.	Concentrate Iron Ore	30,00,000 TPA	--	--
10.	Iron Ore Pellet	30,00,000 TPA	8,18,534.63 TPA	16,31,651.128 TPA
11.	Producer gas Plant	1,50,000 cubic mt/hr.	--	--
12.	SMS & LRF	2,97,000 TPA	--	10,519.07 TPA
13.	Coke Oven	5,50,000 TPA	--	97,927.86 TPA
14.	Pellet Fines	18,000 TPA	--	--

iv) Year of Establishment: - 2020

v) Date of the last Environment Statement Submitted :- 23/09/2022

PART - B

i) Water and river material consumption :-

1. Water Consumption (m³/day) = 1650 KLD

2. Process = NIL

3. Cooling = 1625 KLD

4. Domestic Purpose = 25 KLD

• Consumption per unit of production:-

Name of the product	Water Consumption of product output during the previously financial year (2021-2022)	Water Consumption of product output during the current financial year (2022-2023)
Ferro Alloy (FeCr, FeMn, FeSi & SiMn)	17.59 KLD	1650 KLD
Sponge Iron	924 KLD	
Iron Ore Pellet	77.76 KLD	
Coke Oven Plant	----	

*All data are furnished in the basis of makeup water per day and production capacity is as per CFO permission:-

ii) Raw Material Consumption :-



RAW MATERIAL CONSUMPTION (TPA)				
Si No	Name Of Product	Name Of Raw Material	Consumption quantity per annum (2021-22)	Consumption quantity per annum (2022-2023)
1.	Ferro-Manganese/Silico Manganese Ferro Chromium & Chrome Briquette.	Coal	7,312.03	12,420.09
2.		Coke	12378.82	17,615.62
3.		Manganese	35920.12	64,372.81
4.		Ferro Mn Slag	5807.59	13183.32
5.		Chromium	-	-
6.		Dolomite	4528.90	6,259.24
7.		Molasses	-	-
8.		Lime	-	-
9.		Iron ore Pellet	4,81,872	5,242.54
10.		Quartzite	3,415.70	7,097.55
11.	Iron Ore Pellet	Iron Ore Fines	9,42,792.23	18,11,156.701
12.		Limestone	6,028.51	10,807.58
13.		Bentonite	6,898	15,701.60
14.		Dolomite	-----	3,436.01
15.		Coal	34,447	51,803.42
16.		Anthracite Coal	4,776	27,525.48
17.	Sponge Iron	Iron Ore Lumps	-	-
18.		Iron Ore Pellet	48,1871.86	11,65,387.247
19.		Coal	3,17,421.20	7,94,240.42
20.		Dolomite	15,776.85	34,153.46
21.	Coke	Cooking Coal	-	1,26,840.95
22.		Anthracite Coal	-	16,416.66
23.		Coal	-	1,669.61
24.	M S Billet	Sponge Iron	-	10,030.95
25.		Pig Iron	-	928.59
26.		Runner	-	1,145.14
27.		Scrap	-	849.40
28.		Silico Manganese	-	141.35

PART - C



A. Water Pollution:-

Pollutants	Quantity of pollutant discharged (mass/day)	Concentration of pollutants in discharges (mass/ volume)	Percentage of variation from prescribed standard with reason
NIL	Zero Discharge is maintained. No liquid effluent is generated from the manufacturing progress. Domestic waste water generated from residential colony and office toilets is treated by septic tank and Soak pits.		

B. Air Pollution:

Pollutant type: - Particular Matter

Source of Pollutants	Quantity of pollutant discharged (mass/day)	Concentration of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standard with reason
Ferro Alloy Unit SEAF 1 & 2 (attached with common stack 9 MVA each)	3.9 kg/day	4.115 mg/Nm ³	Within the limit as per CFO warded from WBPCB & MoEF/CPCB notification. The analysis report is annexed as Annexure I.
SEAF 3 (9 MVA)	5.70 kg/day	4.66 mg/Nm ³	
Sponge Iron Unit DRI Kiln 1 & 2 (600 TPD x 2)	232.125 kg/day	23.17 mg/Nm ³	
DRI Kiln 3 & 4 (600 TPD x 2)	342.89 kg/day	21.91 mg/Nm ³	
Coke Oven Plant Coke Oven Battery (No. 1&2) and (No. 3&4)	132.45 kg/day	28.28 mg/Nm ³	
Pellet Plant Rotary Klin (Pellet Plant)	721.15 kg/day	18.68 mg/Nm ³	



PART - D

Hazardous Waste

(As specified under Hazardous Waste Management and Handling Rules, 1989)

Hazardous Waste	Total Quantity (Kg)
	During the current financial year (2022-2023)
From Process	For Liquid = 37.54 MTPA For Solid = 0.042 MTPA
For Pollution control facilities	0.32054 MTPA

PART - E

Solid waste

	Total Quantity	
	During the current financial year (2022-2023)	During the previous financial year (2021-2022)
a) From process	79,683.02 TPA	38,8701.58 TPA
b) From pollution control facilities	1,65,804.05 TPA	21,194.17 TPA
c) Quantity recycled or reutilized within the unit	1,21,115.735 TPA	37,610.51 TPA
d) Sold	2,18,544.96 TPA	5,39,005.58 TPA

PART - F

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

Sl. No.	Name of the Hazardous Waste	Quantity per Annum
1.	Waste Oil (Rule- 5.1)	1.72 MTPA
2.	Cotton Waste/Jute Containing Oil (Rule- 5.2)	0.042 MTPA
3.	Bag Filter (Rule - 35.1)	0.32054 MTPA
4.	Coal-Tar (Rule - 13.4)	35.82 MTPA

All hazardous waste will be disposed of by WBPCB authorized vendors.

Organic bio degradable solid wastes will be used for organic manure creation and used for Green Belt development purpose.



PART - G

In respect of the pollution abatement measures taken up on conservation of natural resources and on the cost of productions.

We are adopting some good manufacturing practice for betterment of plant environment like:

1. ESP dust from pellet plant reused in the process;
2. Dolochar generated is being used in FBC boiler of the associate company.
3. Using air pollution control dust in brick making land levelling solid waste management practice.
4. Online real time continuous stack system is installed and data is being transferred to CPCB server.
5. Waste gas from DRI is used for power generation. Adopting Air cooled cooling system in power plant.
6. Iron ore fines are used for pellet production and this pellet is used in DRI production.
7. Installing ETP cum STP for treating nalla water and using in the plant to meet the makeup water demand.
8. Kiln Accretion from DRI, Ferro Slag which from Sub-Merged Electric Arc Furnace is used in associate company Cement plant at Jhargram and also for land filling after mixing sufficient amount of soil.
9. In DRI plant Bag Filters dust reused in Kiln inlet Hood through pneumatic conveying system from CD, Coal crushers, IB, PH etc. for enhancing the boiler flow to generation of power.
10. Coke Dust from Coke Oven Plant reused in sinter plant of associate company.

PART - H

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

Additional measures being taken for prevention of Pollution are as follows:

1. Planning of extensive green belt development in the additional areas in and around the plant and along the plant boundary.
2. Schedule maintenance and monitoring of all Air Pollution Control Device's (APCD's) like ESP, Bag Filters and Bag House are being regularly



undertaken to ensure their efficient operations in order to keep emission level within the prescribed limits.

3. Regular sprinkling and spraying of water is being done through sprinklers and water tanker for suppress the fugitive dusts.
4. Repairing of internal road inside the plant to reduce fugitive emission.
5. Awareness programs like plantation activities, Slogan competition, extempore speech competition was organized for children for awareness on environment protection/water conservation on 5th June (World Environment Day).

PART- I

Any other particular for improving the quality of the environment

In addition to training of employees in various aspects of pollution control activities of the plant, programs like celebration of World Environment Day, World Safety Day, screening of films on environment, Tree Plantation etc. will be regularly carried out in order to create greater awareness towards environment protection amongst employees and the people in the neighboring areas.

All the environmental standards / stipulation will be fully maintained by the Plan Management on priority basis.

Constant efforts will be made in making use of the updated technologies.





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Rajghumthaliak, P.O. Barghinipur, P.S.- Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission
Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd.		
2. Address	Vill- Gokulpur, Po- Shyamraipur, Kharegpur, Paschim Medinipur		
3. Category & Type	Red, Alloy Steel Plant		
4. Sampling Date	02/12/2021		
5. Duration of Sampling	27 min		
6. Name of Laboratory	Envirocheck		
7. Height of Stack from ground (m)	32.0		
8. Cross section of Stack at sampling point (m ²)	1.766		
9. Stack connected to	SEAF (1 & 2) attached to common stack (9 MVA each)		
10. Emission due to (Furnace /Boiler)	Melting of Coke, Mn ore, dolomite, Lime stone		
11. Average operational hours of boiler/ furnace (per month)	720 hr		
12. APC System (if any)	Bag filter		
13. Working load of source (MT/hr)	9 MVA Each both running		
14. Fuel used	Electricity		
15. Rated Fuel consumption (Kg or l/hr)	NA		
16. Working Fuel consumption (Kg or l/hr)	NA		
17. Nature of Furnace /Boiler	Submerged Arc Furnace		
18. Flue gas Temp. (°C)	74.0		
19. Flue gas velocity	9.57	20. Volume of Flue gas drawn in lit (m ³)	1.026
21. Corrected flue gas volume (Nm ³)	0.9601	22. Percentage CO ₂ & O ₂	CO ₂ -1.2%, O ₂ -16.4%
23. To be compensated at (% if required)	-		
24. Initial wt of thimble (gm)	1.4951	25. Final wt of thimble (gm)	1.5022
26. Wt. of PM (g)	7.1	27. Particulate matter (mg/Nm ³)	7.40
28. Barometric Pressure Head	756 mm of Hg	29. Diameter of the nozzle	9.53
30. Others:- SO ₂ , NO _x	31. Thimble No.		574
32. Sampled by:	K saha, AEE, HRO & N.C. Barai AEE, HRO		

*Done by Envirocheck

[Signature]
23/12/21
Scientist

[Signature]
23/12/21
Signature of In-Charge

- Copy to:
1. Chief Engineer, O & E, WBPCB.
 2. Dr. R.K.Saha, Chief Scientist, WBPCB
 3. Environmental Engineer, H.R.O., WBPCB (two copies)





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Rangnamchak, P.O. Harphaspur, P.S. Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission
Analysis Done at Haldia Regional Laboratory

1. Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd.		
2. Address	Vill- Gokulpur, Po- Shyampur, Khurampur, PaschimMedinipur		
3. Category & Type	Red, Sponge Iron		
4. Sampling Date	08/12/2021		
5. Duration of Sampling	25 min		
6. Name of Laboratory	Envirocheck		
7. Height of Stack from ground (m)	75.0		
8. Cross section of Stack at sampling point(m ²)	28.26		
9. Stack connected to	DRI Kiln(600TPD x 2) attached to common stack (both running)		
10. Emission due to (Furnace /Boiler)	Combustion of Coal & Reduction of Iron Ore		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	ESP		
13. Working load of source (MT/hr)	520TPD Each Kiln		
14. Fuel used	Coal		
15. Rated Fuel consumption (Kg or l/hr)	-		
16. Working Fuel consumption (Kg or l/hr)	22 MTPH		
17. Nature of Furnace /Boiler	Rotary Kiln		
18. Flue gas Temp. (°C)	159.0		
19. Flue gas velocity	12.85	20. Volume of Flue gas drawn in lit (m ³)	1,000
21. Corrected flue gas volume (Nm ³)	0.9136	22. Percentage CO ₂ & O ₂	CO ₂ -11.8%, O ₂ -7.2%
23. To be compensated at (% if required)	-		
24. Initial wt of thimble (gm)	1.5685	25. Final wt of thimble (gm)	1.5875
26. Wt. of PM (g)	19.00	27. Particulate matter (mg/Nm ³)	20.80
28. Barometric Pressure Head	756 mm of Hg	29. Diameter of the nozzle	9.53
30. Others:- SO ₂ , NO _x		31. Thimble No.	575
32. Sampled by:	K sahu, AEE, HRO & N.C. Barai AEE, HRO		

*Done by Envirocheck

[Signature]
23/12/21
Scientist

[Signature]
23/12/21
Signature of In-Charge

- Copy to:
1. Chief Engineer, O & E, WBPCB.
 2. Dr. R.K.Saha, Chief Scientist, WBPCB
 3. Environmental Engineer, H.R.O., WBPCB (two copies)





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Raghunathchak, P.O Barghasipur, P.S- Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission

Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd		
2. Address	Vill-Gokulpur PO- Shyamraipur, Kharagpur, Paschim Medinipur, Pin-721301		
3. Category & Type	Red(Sponge Iron)		
4. Sampling Date	10-03-2022		
5. Duration of Sampling	23 min		
6. Name of Laboratory	Envirocheck		
7. Height of Stack from ground (m)	75.0		
8. Cross section of Stack at sampling point(m ²)	28.26		
9. Stack connected to	DRI Kiln (600 TPD×2) Attached to Common stack (Both are running)		
10. Emission due to (Furnace /Boiler)	Combustion of Coal & Reduction of Iron Ore		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	ESP		
13. Working load of source (MT/hr)	520 TPD		
14. Fuel used	Coal		
15. Rated Fuel consumption (Kg or l/hr)	22 MTPH		
16. Working Fuel consumption (Kg or l/hr)	22 MTPH		
17. Nature of Furnace /Boiler	DRI Kiln		
18. Flue gas Temp. (°C)	169.0		
19. Flue gas velocity m/s	14.32	20. Volume of Flue gas drawn in lit (m ³)	1.012
21. Corrected flue gas volume (Nm ³)	0.9578	22. Percentage CO ₂ & O ₂	CO ₂ -11.4% & O ₂ -7.2 %
23. To be compensated at (% if required)	-		
24. Initial wt of thimble (gm)	1.5498	25. Final wt of thimble (gm)	1.5699
26. Wt. of PM (g)	20.10	27. Particulate matter (mg/Nm ³)	20.99
28. Barometric Pressure Head	759 mm of Hg	29. Diameter of the nozzle	9.5 mm
30. Other:		31. Thimble No.	781
32. Sampled by:	Dr. P. K Mondal & A. Das AEE, HRO		

*Done by Envirocheck

[Signature]
Scientist 04/04/22

[Signature]
Signature of In-Charge 04/04/22

Copy to:

1. Chief Engineer, O & E, WBPCB.
2. Dr. R.K.Saha, Chief Scientist, WBPCB
3. AEE & I/C, H.R.O., WBPCB (two copies)





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Raghunathchak, P.O Barghasipur, P.S- Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission

Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd		
2. Address	Vill-Gokulpur PO- Shyamraipur, Kharagpur, Paschim Medinipur, Pin-721301		
3. Category & Type	Red(Alloy Steel Plant)		
4. Sampling Date	10-03-2022		
5. Duration of Sampling	23 min		
6. Name of Laboratory	Envirocheck		
7. Height of Stack from ground (m)	35.0		
8. Cross section of Stack at sampling point(m ²)	1.766		
9. Stack connected to	SEAF(1 & 2) Attached With Common Stack (9 MVA Each)		
10. Emission due to (Furnace /Boiler)	Melting of Coke, Mn ore , Dolomite , Lime Stone		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	Bag Filter		
13. Working load of source (MT/hr)	9 MVA each		
14. Fuel used	NA(Electrically Operated)		
15. Rated Fuel consumption (Kg or l/hr)	NA		
16. Working Fuel consumption (Kg or l/hr)	NA		
17. Nature of Furnace /Boiler	Submerged Arc Furnace		
18. Flue gas Temp. (°C)	93.0		
19. Flue gas velocity m/s	12.00	20. Volume of Flue gas drawn in lit (m ³)	1.012
21. Corrected flue gas volume (Nm ³)	0.9610	22. Percentage CO ₂ & O ₂	CO ₂ -1.4% & O ₂ -7.8 %
23. To be compensated at (% , if required)	-		
24. Initial wt of thimble (gm)	1.5080	25. Final wt of thimble (gm)	1.5330
26. Wt. of PM (g)	25.00	27. Particulate matter (mg/Nm ³)	26.01
28. Barometric Pressure Head	759 mm of Hg	29. Diameter of the nozzle	9.5 mm
30. Thimble No.	31. Thimble No.		744
32. Sampled by	Dr. P. K Mondal & A. Das AEE, HRO		

* Done by Envirocheck

Ranjit Ghosh 04/04/22
Scientist

R K Mondal 04/04/22
Signature of In-Charge

Copy to

1. Chief Engineer, O & E, WBPCB,
2. Dr. R K Sahu, Chief Scientist, WBPCB
3. AEE & IC, H.R.O., WBPCB (two copies)





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Raghunathchak, P.O Barghasipur, P.S- Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission
Analysis Done at Haldia Regional Laboratory

1 Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd		
2 Address	VIII-Gokulpur PO- Shyamraipur, Kharagpur, Paschim Medinipur, Pin-721301		
3 Category & Type	Red		
4 Sampling Date	10-03-2022		
5 Duration of Sampling	46 min		
6 Name of Laboratory	Envirocheck		
7 Height of Stack from ground (m)	110.0		
8 Cross section of Stack at sampling point(m ²)	47.14		
9 Stack connected to	Rotary Kiln(Pellet Plant)		
10 Emission due to (Furnace /Boiler)	Combustion Coal		
11 Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12 APC System (if any)	ESp		
13 Working load of source (MT/hr)	2.4 MTPA		
14 Fuel used	Coal		
15 Rated Fuel consumption (Kg or l/hr)	7.0 TPH		
16 Working Fuel consumption (Kg or l/hr)	7.0 TPH		
17 Name of Furnace /Boiler	Rotary Kiln(Pellet Plant)		
18 Flue gas Temp. (°C)	113.0		
19 Flue gas velocity m/s	13.40	20. Volume of Flue gas drawn in lit (m ³)	1.012
21. Corrected flue gas volume (Nm ³)	0.9742	22. Percentage CO ₂ & O ₂	CO ₂ -11.4% & O ₂ -7.6 %
23. To be compensated at (% , if required)	-		
24 Initial wt of thimble (gm)	1.5160	25. Final wt of thimble (gm)	1.5342
26 Wt of PM (g)	18.20	27. Particulate matter (mg/Nm ³)	18.68
28 Barometric Pressure Head	759 mm of Hg	29. Diameter of the nozzle	6.32 mm
30 Other:		31. Thimble No.	777
32. Sampled by:	Dr. P. K Mondal & A. Das AEE, HRO		

*Done by Envirocheck

Ganish
Scientist 04/04/22

P. K. Mondal
Signature of In-Charge 04/04/22

Copy to,

1. Chief Engineer, O & E, WBPCB.
2. Dr. R.K. Saha, Chief Scientist, WBPCB
3. AEE & IC, H.R.O., WBPCB (two copies)





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Raghunathchak, P.O Barghasipur, P.S- Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission

Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd		
2. Address	VIII- Gokulpur, Shyamraipur, Kharagpur, Paschim Medinipur		
3. Category & Type	Red, Sponge iron Plant		
4. Sampling Date	16/01/2023		
5. Duration of Sampling	27 min		
6. Name of Laboratory	M/s Envirocheck		
7. Height of Stack from ground (m)	50.0		
8. Cross section of Stack at sampling point(m ²)	7.0650		
9. Stack connected to	Coke Oven Battery (No. 1 & 2) and (No. 3 & 4) attached to common stack through Individual WHRB (All Coke Oven battery were in operation)		
10. Emission due to (Furnace /Boiler)	Carbonization of Coal		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	NIL		
13. Working load of source (MT/hr)	Rated-170 TPD (Each Battery) Running -170 (each Battery)		
14. Fuel used	Coal		
15. Rated Fuel consumption (Kg or l/hr)	-		
16. Working Fuel consumption (Kg or l/hr)	170 TPD (Each coke Oven Battery)		
17. Nature of Furnace /Boiler	Non Recovery Coke Battery		
18. Flue gas Temp. (°C)	153.0		
19. Flue gas velocity m/s	11.97	20. Volume of Flue gas drawn in lit (m ³)	1.026
21. Corrected flue gas volume (Nm ³)	0.9889	22. Percentage CO ₂ & O ₂	CO ₂ -5.6% & O ₂ -12.4%
23. To be compensated at (% , if required)	At 6% CO ₂		
24. Initial wt of thimble (gm)	1.4309	25. Final wt of thimble (gm)	1.4570
26. Wt. of PM (mg)	26.10	27. Particulate matter (mg/Nm ³)	28.28
28. Barometric Pressure Head	755 mm of Hg	29. Diameter of the nozzle	9.52 mm
30. Others:-		31. Thimble No.	242
32. Sampled by:	A.Das, AEE, HRO		

*Done by M/s Envirocheck

Gandhi
09/02/23
Scientist

A. Das
16/01/23
Signature of In-Charge

- Copy to:
1. Chief Engineer, O & E, WBPCB.
 2. Chief Scientist, WBPCB
 3. AEE & I/C, H.R.O, WBPCB (two copies)





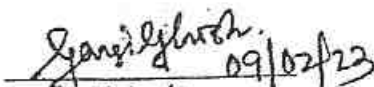
WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Raghnathchak, P.O Barghasipur, P.S- Bhabanipur, Haldia
Purba Medinipur- 721657


Analysis Report of Gaseous Emission

Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd		
2. Address	VIII- Gokulpur, Shyamraipur, Kharagpur, Paschim Medinipur		
3. Category & Type	Red, Sponge iron Plant		
4. Sampling Date	16/01/2023		
5. Duration of Sampling	39 min		
6. Name of Laboratory	M/s Envirocheck		
7. Height of Stack from ground (m)	75.0		
8. Cross section of Stack at sampling point(m ²)	15.91		
9. Stack connected to	Rotary Kiln(No.1 &2) (600 TPD x 2) attached to common stack through WHRB(only Rotary Kiln No.-2 was in running)		
10. Emission due to (Furnace /Boiler)	Oxidation of Coal and reduction of Fe ore		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	Individual ESP		
13. Working load of source (MT/hr)	600 TPD(only for Rotary Kiln 2)		
14. Fuel used	Coal		
15. Rated Fuel consumption (Kg or l/hr)	-		
16. Working Fuel consumption (Kg or l/hr)	21.8 TPH(Only Rotary Kiln-2)		
17. Nature of Furnace /Boiler	Rotary DRI Kiln		
18. Flue gas Temp. (°C)	122.9		
19. Flue gas velocity m/s	7.61	20. Volume of Flue gas drawn in lit (m ³)	1.014
21. Corrected flue gas volume (Nm ³)	0.9577	22. Percentage CO ₂ & O ₂	CO ₂ -10.8% & O ₂ -8.0%
23. To be compensated at (% , if required)	At 12% CO ₂		
24. Initial wt of thimble (gm)	1.4672	25. Final wt of thimble (gm)	1.4914
26. Wt. of PM (mg)	24.20	27. Particulate matter (mg/Nm ³)	28.08
28. Barometric Pressure Head	755 mm of Hg	29. Diameter of the nozzle	9.52 mm
30. Others:-		31. Thimble No.	241
32. Sampled by:	A.DAS, AEE, HRO		

*Done by M/s Envirocheck


Scientist


Signature of In-Charge

Copy to:
1. Chief Engineer, O & E, WBPCB.
2. Chief Scientist, WBPCB
3. AEE & I/C, H.R.O, WBPCB (two copies)





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Raghunathchak, P.O Barghusipur, P.S- Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission

Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orissa Alloy Steel Pvt. Ltd		
2. Address	Vill- Gokulpur, Shyamraipur, Kharagpur, Paschim Medinipur		
3. Category & Type	Red, Sponge Iron Plant		
4. Sampling Date	16/01/2023		
5. Duration of Sampling	27 min		
6. Name of Laboratory	M/s Envirocheck		
7. Height of Stack from ground (m)	90.0		
8. Cross section of Stack at sampling point(m ²)	28.28		
9. Stack connected to	Rotary Kiln(No.3 &4) (600 TPD x 2) attached to common stack through WHRB(both Kiln were in operation)		
10. Emission due to (Furnace /Boiler)	Oxidation of Coal and reduction of Fe ore		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	Individual ESP		
13. Working load of source (MT/hr)	600 TPD x 2		
14. Fuel used	Coal		
15. Rated Fuel consumption (Kg or l/hr)	-		
16. Working Fuel consumption (Kg or l/hr)	22 TPH(Each Kiln)		
17. Nature of Furnace /Boiler	Rotary DRI Kiln		
18. Flue gas Temp. (°C)	158.7		
19. Flue gas velocity m/s	11.92	20. Volume of Flue gas drawn in lit (m ³)	1.026
21. Corrected flue gas volume (Nm ³)	0.9722	22. Percentage CO ₂ & O ₂	CO ₂ -11.4% & O ₂ -7.4%
23. To be compensated at (%. if required)	At 12% CO ₂		
24. Initial wt of thimble (gm)	1.4011	25. Final wt of thimble (gm)	1.4272
26. Wt. of PM (mg)	26.10	27. Particulate matter (mg/Nm ³)	28.26
28. Barometric Pressure Head	755 mm of Hg	29. Diameter of the nozzle	9.52 mm
30. Others:-		31. Thimble No.	240
32. Sampled by:	K. Sahoo, AEE, IIRO		

*Done by M/s Envirocheck

Sanku Ghosh
09/02/23
Scientist

[Signature]
Signature of In-Charge

- Copy to:
1. Chief Engineer, O & E, WBPCB.
 2. Chief Scientist, WBPCB
 3. AEE & I/C, H.R.O, WBPCB (two copies)





WEST BENGAL POLLUTION CONTROL BOARD
HALDIA REGIONAL LABORATORY
Raghunathchak, P.O Barghasipur, P.S- Bhabanipur, Haldia
Purba Medinipur- 721657

Analysis Report of Gaseous Emission

Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orrisa Alloy Steel Pvt. Ltd		
2. Address	Vill- Gokulpur, Shyamraipur, Kharagpur, Paschim Medinipur		
3. Category & Type	Red, Alloy Steel Plant		
4. Sampling Date	16/01/2023		
5. Duration of Sampling	28 min		
6. Name of Laboratory	M/s Indicative Consultant India		
7. Height of Stack from ground (m)	35.00		
8. Cross section of Stack at sampling point(m ²)	1.7678		
9. Stack connected to	Submerged Electrical Arc Furnace No-3		
10. Emission due to (Furnace /Boiler)	Melting of coke, Mn ore, Dolomite, Lime stone		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	Bag filter		
13. Working load of source (MT/hr)	9 MVA		
14. Fuel used	Electrically		
15. Rated Fuel consumption (Kg or l/hr)	-		
16. Working Fuel consumption (Kg or l/hr)	-		
17. Nature of Furnace /Boiler	SEAF		
18. Flue gas Temp. (°C)	54.0		
19. Flue gas velocity m/s	9.59	20. Volume of Flue gas drawn in lit (m ³)	1.008
21. Corrected flue gas volume (Nm ³)	0.9451	22. Percentage CO ₂ & O ₂	CO ₂ -1.8% & O ₂ -17.2%
23. To be compensated at (% , if required)	-		
24. Initial wt of thimble (gm)	1.5888	25. Final wt of thimble (gm)	1.5932
26. Wt. of PM (mg)	4.40	27. Particulate matter (mg/Nm ³)	4.66
28. Barometric Pressure Head	755 mm of Hg	29. Diameter of the nozzle	9.525 mm
30. Others:-		31. Thimble No.	217
32. Sampled by:	K. Sahoo, AEE, HRO		

*Done by M/s Indicative Consultant India

K. Sahoo
08/02/23
Scientist

K. Sahoo
08/02/23
Signature of In-Charge

- Copy to: .
1. Chief Engineer, O & E, WBPCB.
 2. Chief Scientist, WBPCB
 3. AEE & I/C, H.R.O, WBPCB (two copies)



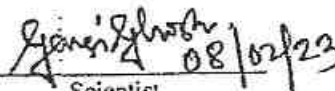


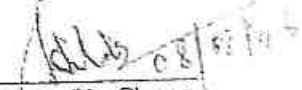
Analysis Report of Gaseous Emission

Analysis Done at Haldia Regional Laboratory :

1. Name of Industry	M/s Orrisa Alloy Steel Pvt. Ltd		
2. Address	Vill- Gokulpur, Shyamraipur, Kharagpur, Paschim Medinipur		
3. Category & Type	Red. Alloy Steel Plant		
4. Sampling Date	16/01/2023		
5. Duration of Sampling	34 min		
6. Name of Laboratory	M/s Indicative Consultant India		
7. Height of Stack from ground (m)	35.00		
8. Cross section of Stack at sampling point(m ²)	1.7678		
9. Stack connected to	Submerged Electrical Arc Furnace No-1 & 2 (attached with a Common Stack)		
10. Emission due to (Furnace /Boiler)	Melting of coke, Mn ore, Dolomite, Lime stone		
11. Average operational hours of boiler/ furnace (per month)	720 hrs/month		
12. APC System (if any)	Bag filter		
13. Working load of source (MT/hr)	9 MVA		
14. Fuel used	Electrically		
15. Rated Fuel consumption (Kg or l/hr)	-		
16. Working Fuel consumption (Kg or l/hr)	-		
17. Nature of Furnace /Boiler	SEAF		
18. Flue gas Temp. (°C)	62.0		
19. Flue gas velocity m/s	8.19	20. Volume of Flue gas drawn in lit (m ³)	1.023
21. Corrected flue gas volume (Nm ³)	0.9596	22. Percentage CO ₂ & O ₂	CO ₂ -2.0% & O ₂ -17.0%
23. To be compensated at (% , if required)	-		
24. Initial wt of thimble (gm)	1.4368	25. Final wt of thimble (gm)	1.4430
26. Wt. of PM (mg)	6.20	27. Particulate matter (mg/Nm ³)	6.46
28. Barometric Pressure Head	755 mm of Hg	29. Diameter of the nozzle	9.525 mm
30. Others:-		31. Thimble No.	216
32. Sampled by:	K. Sahoo, AEE, HRO		

*Done by M/s Indicative Consultant India


Scientist


Signature of In-Charge

- Copy to:
1. Chief Engineer, O & E, WBPCB.
 2. Chief Scientist, WBPCB
 3. AEE & I/C, H.R.O, WBPCB (two copies)

